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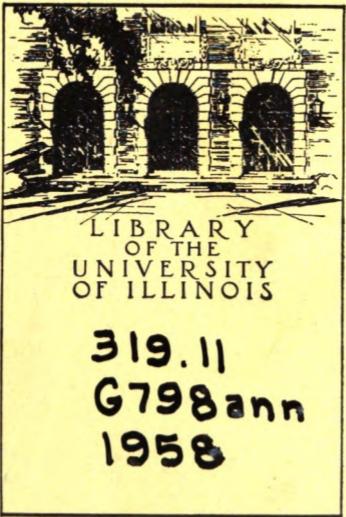
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SARAWAK ANNUAL REPORT

1958



Mr. J.C.H. Barcroft, C.M.G., O.S.S., the
Chief Secretary, who died at Lawas on 6th
June, 1958, during an official tour. (G.S.I.S.)

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SARAWAK

ANNUAL REPORT

1958

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PART I

I

GENERAL REVIEW OF THE YEAR

THE new constitution continued to work very satisfactorily. Council Negri met three times during the year and the general trend of debates demonstrated clearly that all the main interests of the people and country were well represented in the Council. At the September meeting the Council approved a resolution that a committee of unofficial members should be appointed to examine the implications of closer association between the three territories of British Borneo and to report back to the Council on the more detailed information which should be presented about this proposal to the people of the territories. A motion in somewhat similar terms was also passed by the North Borneo Legislative Council and it is expected that the committees of unofficials of both Territories will undertake conducted tours of North Borneo and Sarawak in the course of 1959 in order to study the circumstances of each and so be better qualified to make their reports.

In the field of local government all district councils displayed greater experience in the technique of managing their own affairs and considerable progress was made by the more advanced local authorities as they assumed a wider variety of responsibilities. The advancement of primary education remains the subject of closest concern to all authorities, particularly those administering the more backward areas. In accordance with the provisions of the Constitution Order in Council of 1956 Council Negri will be dissolved at the end of 1959 and, in order to enable fresh electoral colleges to be set up simultaneously throughout the country for the election of the new Council Negri, it has also been decided to dissolve all other councils at the same time. The terms of office of certain district councils which would otherwise have come to an end this year have accordingly been extended to the end of 1959, while it will for the same reason be necessary to curtail by one year the terms of office of some other councils.

During 1958 the export prices of our principal commodities were lower than they had been for several years and the value of the country's external trade decreased by about \$30 million. This in turn adversely affected the revenue accruing to Government, although government expenditure continued to rise in the usual way. There was, however, one welcome new source of revenue as a result of the first year's operations of the bauxite industry; almost 100,000 tons of ore were exported and this produced a sum of \$150,000 in the forms of royalty and export duty. At the budget meeting of Council Negri in December it was decided that 1959 would have to be a year of consolidation rather than expansion, with a tight control kept over government expenditure; and it will probably be necessary to curtail considerably the present ambitious development plan. For the first time in its history Sarawak incurred a public debt. Government debentures were placed on sale within the territory in 1958 and these finally raised a total of \$1½million.

The great and rapid expansion in education is making the problem of financing education more acute. Expenditure in the ordinary recurrent budget has risen from \$1¼ million in 1955 to nearly \$9 million in 1958; expenditure from development funds rose from \$280,000 to \$3½ million in the same period. There was much building activity by Government, local authorities and voluntary agencies; capital grants paid by Government were double those paid in 1957 and seven times those paid in 1956, the first year of the grants-in-aid system. To raise their matching contribution several local authorities imposed education cesses. Two new secondary schools were built by Government, one at Miri and the other 24 miles outside Kuching; and one new secondary school was opened at Kanowit.

For the first time admission to secondary schools this year was governed by common examinations. Only those deemed suitable for academic secondary education were awarded "selected" places; the remaining vacancies being filled by "unselected" students who pay higher fees. A committee appointed to survey the curriculum, syllabuses and text-books used in Chinese-medium schools produced its report in 1958. Its recommendations were accepted and passed on to Chinese Schools Management.

Mainly to assist native primary education a Schools Broadcasting Service was initiated during the year. Its aim is

to assist the remoter schools and the emphasis is on the teaching of English for which there is a great demand. The scheme was organised by a schools' broadcasting officer loaned by the Government of New Zealand under the Colombo Plan. With the aid of two Canadian teachers seconded under the Colombo Plan the group headmaster scheme for helping native primary schools made excellent progress and bore fruitful results in two areas. News was received towards the end of the year that the Australian Government had also agreed to provide an experienced teacher to take charge of another group of schools in yet a third area.

A Supervisor of Technical Education was appointed early in the year, and later on a Director was appointed for the Literature Bureau which is being set up to assist and encourage the production and distribution throughout the Territory of books with a regional background both for adult readers and school pupils.

The Government continued to grant scholarships for higher education and training overseas and at the end of the year there were 116 students pursuing higher studies overseas on courses lasting at least one year.

There was considerable expansion in the services provided by the Medical Department during the year owing to a marked improvement in the medical officer staffing position. Large modern hospitals in the main towns now provide efficient therapeutic services; while in the countryside there is a complicated network of fixed and travelling dispensaries, rural midwives and dressers. There are now very few parts of the country that are not within reach of some kind of medical help. The mass campaign for the eradication of malaria continued to make excellent progress and the control scheme finally covered the whole country during the year under review. There is now virtually no transmission of malaria throughout the length and breadth of Sarawak and 350,000 people who formerly suffered constantly from this disease have been freed of it. But anti-malarial work in Sarawak is by no means finished; continual control and surveillance are needed and will continue to be carried out until malaria has been eradicated from the whole island of Borneo. The first steps to this end were taken in June and December when representatives from Indonesian Borneo attended Borneo Malaria Conferences at Sibu and Kuching.

The Department now proposes to devote more detailed attention to the eradication of tuberculosis which remains Sarawak's most serious disease. This problem has not been entirely neglected for there is a busy out-patient tuberculosis clinic in Kuching and there are tuberculosis wards in the hospitals at Kuching, Sibu and Miri. In addition the Anti-Tuberculosis Association of Sarawak opened a convalescent home for 36 patients near Kuching in June and plans are well advanced for the construction of convalescent homes in the form of Dayak long-houses at Marudi and Bintulu in the Fourth Division. Work on the anti-tuberculosis campaign will be speeded up in 1959 when, as a result of visits this year from two expert advisers to the Australian Government, a Colombo Plan team will arrive from Australia to plan and direct a concerted attack on this disease.

New buildings completed during the year included the fine up-to-date mental hospital seven miles from Kuching, which was opened in June and already accommodates over 300 patients; more extensions to the hospital at Sibu; a fine new dispensary with 16 beds in Limbang; and two rural dispensaries at Nonok and Spaoh.

A very welcome visitor in February was Mr. John Wilson, Director of the Royal Commonwealth Society for the Blind. As a direct result of his visit the Sarawak Branch of the British Red Cross Society has organised a series of classes of instruction for blind persons who have been brought to Kuching for the purpose from all over the country.

The main emphasis in agricultural development continued to be on the rubber planting scheme, but improvements in the staffing position enabled more attention to be given to other activities such as the distribution of increased supplies of planting material of every description and of improved livestock; extended and intensive pest control services; training courses for farmers; better advisory services; expanded tractor hire and milling facilities; and regular broadcasting on technical subjects in the vernacular. The rubber planting scheme made great headway. By the end of the year a total of 38,611 acres had been approved for new or replanting and of these no less than 21,847 acres had already been planted with high yielding rubber. Applications to plant an additional 20,000 acres in 1959 were also received. The continued supply of high class planting material

was assured by the importation of nearly twelve million clonal seeds from approved nurseries in Malaya and during the year almost two million clonal seedling stumps and germinated seeds were distributed from departmental nurseries to approved planters. In order to finance the expansion of the scheme during the coming years and to enable the payment of larger subsidies, Council Negri decided in December to approve the levying of a cess of two cents on every pound of rubber exported as from the first of January, 1959. This money will be paid directly into the Rubber Fund and used solely for the furtherance of the rubber industry.

1958 was another poor year for the pepper and sago industries with prices for these commodities remaining at a very low level, although somewhat higher than in 1957. Research into pepper diseases continued during the year and recommendations for the setting up of a marketing board for pepper awaits the arrival in 1959 of a marketing expert who has been engaged by the Government. Towards the end of the year it was decided to launch a subsidised coconut planting scheme in 1959 and a sum of \$1,275,000 was set aside for this purpose.

The Forestry Department increased the permanent forest estate by a further 186 square miles during the year bringing the total to 10,963 square miles or approximately 23 per cent of the land area of the country. Public interest in communal forests continues to grow; two of these were constituted during the year and four more were under preliminary proclamation. Ramin remained the most important timber export and although there was a severe recession in the market during the middle of the year it improved later. The export controls on ramin continued in force and undoubtedly brought considerable benefit to the trade and country alike. Exports for the year totalled 135,502 tons of ramin and 59,452 tons of other timbers valued at \$19,568,542 f.o.b.

A major operation of the Lands and Survey Department was the introduction of the new Land Code which was brought into force on the 1st January. This entailed much organisation within the Department which also continued to press on with its policy of investigation of customary rights over land, with a view to alienating for permanent settlement by others genuinely in need such land as is shown to be surplus to the needs of the holders of the customary rights. On this basis several useful land

settlement schemes have been put in hand. More detailed land use plans were also in course of preparation covering future likely areas of development and the activities of the Department generally continued to expand.

The Geological Survey made good progress and geological mapping has now been completed over 23,640 of Sarawak's 47,000 square miles. In addition three important regional surveys were in hand during 1958 covering a further 23,000 square miles. It was established that large reserves of pure limestone suitable for making cement exist near the Baram river and that the river mud is suitable for mixing with the limestone, but transport difficulties are such that it is doubtful whether a cement industry there would be an economic proposition.

The Public Works Department had another very busy year. With the appointment of a new Director fresh life was infused into the organisation of the Department and excellent progress was made with the main works in hand. Construction of the trunk road from Serian to Simanggang continued in a satisfactory manner and formation work reached a point about 20 miles beyond Serian. Good progress was also made with the Sarikei-Binatang road and the Lawas-Trusan road. Airfield construction included the completion of runways at Mukah and Lawas, while the grass runway at Marudi was nearing completion at the end of the year. The preparation of the site of the new port area for Kuching was well under way and a two-berth wharf was under construction. A large variety of other building works was in hand and many buildings were completed during the year.

It was decided that the water supplies for Kuching and Sibu should be administered as from 1959 by Water Boards and much preliminary work was done towards the establishment of these Boards. Plans were also drawn up for installing water supplies in various small towns so far not provided with piped water.

Further progress was made with the improvement of telecommunication services and communication by radio telephone or wireless telegraphy is now available at 56 places in Sarawak. Extensions were completed to the automatic telephone exchanges in Kuching, Sibu and Miri.

The reorganisation and development of the police force continued throughout the year and standards of efficiency steadily improved. An ever higher standard of recruit is now

joining the ranks of the constabulary and there is a very welcome increase in the number of Chinese recruits. At the same time it is noticeable that public confidence in the Force is also increasing. A detachment of the 1st Battalion the Cheshire Regiment from Singapore undertook a combined training exercise with units of the Sarawak Constabulary towards the end of the year. The exercise was most successful from every aspect.

The Sarawak Rangers again played an important and successful part in the operations against the terrorists in Malaya, although they are now considerably reduced in strength owing to the improvement in the overall situation in Malaya.

The work of the Information Department continued on an expanded scale on the lines laid down in previous years. The press section of the office was strengthened by the work of a Chinese press officer appointed at the end of 1957, who maintained close and effective relations between Government and Chinese newspapers. Sir Steven Runciman visited the Territory for several months in the course of his work on the official history of Sarawak.

In April Radio Sarawak's new service was inaugurated by His Excellency the Governor, since when the service has broadcast daily 12 hours of programme on two simultaneous transmissions, each radiating on both the medium and short wave bands. At the same time a powerful new short wave transmitter was brought into operation which greatly improved coverage throughout the country. The facilities provided at Broadcasting House, the Transmitting and the Receiving Stations may now be claimed as amongst the finest in South East Asia. As mentioned elsewhere in this review a pilot scheme of broadcasting to schools was successfully concluded during the year and a regular service to schools will be inaugurated in 1959.

The old Museum building was completely renovated during the year and new equipment is to be purchased for the interior which will enable the exhibits to be laid out in more attractive fashion and to be better preserved. Further excavations were carried out in the Niah caves on a much larger scale than hitherto. These excavations have attracted world-wide interest and have been made possible by generous financial assistance from the Calouste Gulbenkian Foundation of Lisbon and the continued support and assistance of the British Borneo Group of Shell Oil Companies. This year also saw the publication of

some of the work done in Niah during previous digging "seasons". It has been established that the oldest deposits so far exposed relate to a date about 38,000 B.C.

A notable event in local aviation was the addition of two Twin Pioneer aircraft to Borneo Airways' existing fleet of three Rapides, thus enabling a greatly expanded air service to be provided within British Borneo. Apart from the airfields mentioned earlier as having been constructed by the Public Works Department, "ulu" airstrips were also built with local labour at Long Akah and Belaga.

Council Negri dealt with a legislative programme which is set out in detail later in this report and the Legal Department was heavily engaged with work on the Revised Edition of the Laws of Sarawak.

The Territory lost two Chief Secretaries during the year. In May Mr. J. H. Ellis, C.M.G. retired from the service and was succeeded by Mr. J. C. H. Barcroft, C.M.G., O.S.S.; but the latter was suddenly and tragically struck down by a heart attack while on tour at Lawas from which he died on 6th June. This was a grievous blow to the country, for Mr. Barcroft had given 28 years of loyal and devoted service to Sarawak and was a much beloved and highly respected officer. Mr. A. R. Snelus immediately returned from leave in the United Kingdom and acted as Chief Secretary for the remainder of the year.

Sarawak had the pleasure of welcoming a number of distinguished guests during the year, amongst whom were His Highness the Sultan of Pahang; Sir Robert Scott, G.C.M.G.; Sir William Goode, K.C.M.G., Governor of Singapore, and Lady Goode; Sir Roland Turnbull, K.C.M.G., Governor of North Borneo; Vice-Admiral Sir Gerald Gladstone, K.C.B., Commander-in-Chief of the Far East Naval Station; Lord Reith, G.C.v.O., Chairman of the Colonial Development Corporation; the Earl of Ranfurly, K.C.M.G.; Lord Rennell of Rodd; Rt. Hon. Malcolm MacDonald, P.C., High Commissioner for the United Kingdom in India; Mr. George Clutton, C.M.G., Her Majesty's Ambassador in Manila; Mr. Eugene Melville, C.M.G., Assistant Under-Secretary of State at the Colonial Office; Lady Baden-Powell, G.B.E.; Mr. Banerji, High Commissioner for India in Singapore; and many others.

The Territory also received most welcome visits from units of the Royal Navy, the Royal Australian Navy, the Royal New Zealand Navy and the Royal Malayan Navy.

Lady Baden Powell, G.B.E., the World Chief Guide, at a Youth Rally in Kuching, April, 1958. (G.S.I.S.)





DEVELOPMENT

In 1957 a new Development Board, consisting of members of Council Negri, was appointed. The new Board had its first meeting in July, 1957, during which a review of the Development Plan for the period 1955-1960 was undertaken. Resulting from this review, a revised Plan providing for expenditure of \$105 million to be spent on development between 1957 and 1960 was adopted and approved by Council Negri in August, 1957.

Progress achieved in development work is touched on in several paragraphs in this chapter and in subsequent chapters of this Report. A separate Report on Development is also published annually by the Development Board. In general it may be said that progress has been more rapid during the last two years in view of the improved staff position and consequently the rate of expenditure on development is increasing. As a result the problem of finance is now giving concern since it is no longer possible to draw on surplus balances. Recourse will have to be made to loan finance in 1959 and subsequent years.

Expenditure under the Development Plan is given in detail in an Appendix to this Report and may be summarised as follows:

	<i>Colonial Development and Welfare Funds</i>	<i>Sarawak Funds</i>	<i>Total</i>
	\$	\$	\$
Actual Expenditure to end of 1957	14,492,444	95,382,652	109,875,096
Actual Expenditure in 1958	2,398,878	20,280,549	22,679,427
Estimated Expenditure in 1959	4,420,716	28,040,947	32,461,663

Several applications were received for the establishment of pioneer industries in Sarawak as a result of the enactment in 1957 of the Pioneer Industries (Encouragement) Ordinance. Out of the applications received, the following have been declared to be pioneer industries:—

cement; particle board; and metal containers.

Other applications are still under consideration.

The Prime Minister of Malaya, Tuanku Abdul Rahman Alhaj, being greeted at Kuching airport in September, 1958. (G.S.I.S.)

PART II

I

POPULATION

THE main native groups in Sarawak are Sea Dayak (or Iban), Malay, Melanau, Land Dayak, and a number of smaller groups comprising Kayans, Kenyahs, Bisayahs, Kedayans, Kelabits, Muruts, and others. The non-native races include Europeans, Chinese, Indians and Javanese.

The following table shows the number of each group in the 1947 Census, the latest to be taken:

	Population	Percentage of total population
Sea Dayak	190,326	34.8
Chinese	145,158	26.6
Malay	97,469	17.9
Land Dayak	42,195	7.7
Melanau	35,560	6.5
Other Indigenous	29,867	5.5
Other Non-Indigenous Asian	5,119	1.0
European	691	0.1
	<hr/>	<hr/>
	546,385	100.0

The natives of Sarawak form 72.4 per cent of the population. The Sea Dayaks are the largest and probably the most homogeneous group. Very strong local variations appear in the Sea Dayak language, but it is distinctive and well-recognised as a native language of Sarawak.

The Land Dayaks are mainly in the First Division. The legendary home of these people is believed by many of them to be Gunong Sungkong in West Borneo, and a close relationship exists with people of the same culture in nearby villages in West Borneo. This kinship leads to some movement across the border.

The Malays are of mixed stock and probably the most recent arrivals of all the indigenous peoples. They are bound by the common tie of Islam and have been powerful along the coast for centuries. Their domination has been intermittent and at times

must have been almost non-existent, but it was sufficiently effective to leave an impression upon the pagan tribes of the seaboard.

Numerically the Chinese are the second most important group; economically they take first place and culturally their influence is very strong. There is substantial evidence that Chinese have lived in parts of Sarawak for many hundreds of years.

The Melanaus are found in the coastal areas of the Third and Fourth Divisions, and are the principal cultivators of sago. They are intermediate between the Malays and the pagan groups, in that some of them retain their pagan customs and habits, while others have become Muslims.

The Kayans and Kenyahs live on the Baram River and the headwaters of the Rejang and Balui. They are thought to have come from the Batang Kayan across the Indonesian border.

Other indigenous races are the Muruts, Bisayahs, Kelabits, nomadic Penans, Kedayans, and Dusuns from North Borneo.

The estimated populations at the 31st December, 1957 were made up as follows:—

Sea Dayak	199,595
Chinese	197,723
Malay and Melanau	158,567
Land Dayak	50,487
Other Indigenous	32,753
Other Non-Indigenous (including 2,341 Europeans)	9,237
	<u>648,362</u>

These figures are based on the 1947 Census together with the births and deaths registered since then and the volume of migration to and from the country.

Migration to and from Sarawak during 1958 was as follows:—

	Immigrants	Emigrants
Chinese	7,320	6,449
European	2,715	2,717
Malay	917	759
Melanau	3	10
Sea Dayak	567	545
Land Dayak	—	—
Other Indigenous	29	7
Other Asian	326	685
	<u>11,877</u>	<u>11,172</u>

II

OCCUPATION, WAGES AND LABOUR ORGANISATION

MOST of the people are farmers. The native peoples are nearly all padi farmers, but they also grow rubber or sago and collect from the jungle rattan, jelutong and damar (resin). Chinese farmers rely on rubber and pepper. During 1958 the average price for rubber was some eight to ten cents lower than in 1957, but this was good enough to maintain the activity of the previous two years. As in 1957, the price for pepper was low and production remained much the same.

Malays and Melanaus work in the sago and timber industries, and Dayaks as log extractors in the forests, on the roads and in the oilfields.

The general improvement in the timber trade at the beginning of the year was not maintained. Activity during the latter half of 1958 tended to drop. By means of short time however employment was maintained on the same scale as in 1957.

Building, both private and under the Government Development Plan, dockwork, and the distribution of imported goods occupied many skilled and unskilled workers.

Entry permits for skilled workers are granted for limited periods only, to permit the completion of a specified task and to cover the training of a local worker in the same project.

In a year of recession unemployment was not severe. Continued activity in rubber and to a lesser extent in timber offset the decrease in pepper production and the depressed sago market. Unemployment from the pepper and sago industries was absorbed in padi growing and rubber.

Sarawak Oilfields Limited are the largest employer in Sarawak. In the field and in the refinery at Lutong, they have a senior staff of 54, a regional staff of 300, and 788 skilled and 627 unskilled workers, among whom Chinese, Malays, Dayaks, Indians and Indonesians respectively are roughly in the proportion of 23, 55, 3, 16 and 3 per cent. A considerable number of

skilled and unskilled workers were employed by the Company's contractors.

Rates of pay of the oil company's workers ranged from a minimum of \$4.22 per day for unskilled workers to \$10.92 for the highest skilled artisan. Features of the Company's wage policy include a temporary cost of living allowance of 10 per cent for bachelors and 15 per cent for married workers; outstation and remoteness allowances where living accommodation, amenities etc. are below standard; and allowances for such work as diving, standing by, etc. Weekly hours of work are 43½ and overtime pay is 1½ times the ordinary rate. Two weeks' annual leave with pay is given and, for sickness, full pay for the first four weeks and half pay for the next eight weeks.

The company completed its labour housing schemes and maintained its high standard of health and medical services. Clubs, playing fields, cinemas and free transport are provided. Annually elected representatives meet the management each month to discuss working conditions, disputes, grievances and other matters affecting mutual relations and understanding. There are Malay, Chinese, Iban and Indian representatives chosen roughly in proportion to the racial strengths. Subjects discussed during the year included housing, transport, redundancy, transfers, safety, medical and health, leave, grading of jobs, wages, allowances, overtime, houses, funeral expenses, and household facilities. There is an apprentice training scheme at Lutong, designed to train boys on the job and in the workshops.

There are limited training schemes in Government Departments. The Agricultural Department has a training scheme for fifteen men in preparation. The Public Works Department has 87 men in training and the Brooke Dockyard 28 apprentices working on the repair and overhaul of marine diesel engines and ships' auxiliary machinery. The Sarawak Electricity Supply Company is training seven apprentices.

An eight-hour day and six-day week are provided by the Labour Ordinance.

Wage levels have generally been maintained. The cost of living slowly dropped in both the oilfields and in Kuching. There was a decrease of six points in the Kuching price index. Comparisons of the average figures for the years 1955, 1956, 1957 and 1958, with the basic figure of one hundred for August, 1950, were respectively 122, 119.58, 121.19 and 114.87.

The daily earnings of a rubber tapper ranged from \$2.00 to \$6.70 with an average of \$3.62 per day: there are in addition perquisites in the form of free housing and other amenities. Carpenters earn \$8.00 a day. The rate in the sawmills varies from a minimum of \$2.80 to \$13.00 per day with an average \$6.70. Road and building construction workers range from \$4.00 to \$14.00 with an average of \$6.00 and wharf labourers from \$4.00 to \$11.80 with an average of \$7.71 per day. The minimum wage in the oilfields is \$5.74 a day for skilled workmen and \$4.22 for unskilled. Both classes are given free housing, light and fuel.

The Commissioner of Labour for Sarawak is also Commissioner for Brunei. He is stationed at Kuala Belait in the Brunei oilfield. All District Officers are Deputy Commissioners of Labour and responsible for enforcing labour legislation and for the inspection of industrial undertakings within their areas.

The Labour Ordinance, embodying the principles of the International Labour Conventions and enacted in 1951, protects workers in hours of work, health conditions, the age of admission to employment, medical treatment, provision of written contracts of employment, notice pay, and conditions of extra-territorial recruitment.

Six trade unions were registered in 1958 bringing the total to thirty-eight. The older and bigger unions are developing on sound lines. Some of the smaller ones, more in the nature of guilds than trade unions, are too small to be effective. It is the policy of the Government to promote the healthy growth of trade unions, and the Registrar of Trade Unions and the Commissioner of Labour keep in close touch, to advise them on sound union lines.

There was one significant essential service trade dispute, between 170 workers of the Sarawak Electricity Supply Company and the management, about staff administration grievances. The workers went on strike on 14th May 1958 and resumed work two days later, losing 340 man-days' work. This was the second major strike since 1952. Industrial disputes are infrequent. Minor wage disagreements are settled without difficulty either by the Commissioner or his Deputy. There is normally no labour unrest and little reason to fear it. The demand for labour is still considerable and wages are generally high.

III

PUBLIC FINANCE AND TAXATION

REVENUE AND EXPENDITURE

REVENUE and Expenditure for the years 1957 and 1958 were:

	Revenue	Expenditure	Surplus
	\$	\$	\$
Actual 1957	52,163,906	50,587,350	1,576,556
Actual 1958	60,030,159	57,956,444	2,073,715

A sum of \$9,200,000 was transferred to the Development Fund from Surplus Balances in 1958 and the General Revenue Balance as at 31st December, 1958, was \$36,987,574.

REVENUE

The main heads of Revenue are:

	Actual 1958	Actual 1957
	\$	\$
Customs	26,648,489	26,107,389
Licences, Taxes and Internal Revenue	3,637,662	3,514,898
Fees of Court or Office, etc.	1,356,467	977,486
Departmental Services	2,134,523	1,707,391
Reimbursements	1,486,626	1,420,990
Land	1,121,840	1,067,823
Forestry	2,776,298	1,677,952
Posts and Telegraphs	1,626,034	1,519,171
Marine	333,332	285,686
Revenue from Government Property	1,463,361	1,372,721
Interest	2,922,480	2,998,605
Income Tax	12,094,386	8,504,248
Extraordinary Revenue		
Land Sales	403,344	632,006
Loan Repayments	285,688	175,170
C.D. & W. Grants	84,352	—
Miscellaneous	1,655,277	202,370
	\$60,030,159	\$52,163,906

EXPENDITURE

Heads of Expenditure are:

<i>Head</i>	<i>Actual 1958</i>	<i>Actual 1957</i>
Governor	183,888	178,690
Rajah's Dependants	48,621	980,462
Administration	2,805,898	2,628,419
Agriculture	1,337,660	1,144,390
Audit	142,318	127,063
Boys' Homes	40,107	40,104
Broadcasting	673,364	581,350
Civil Aviation and Meteorological Service	401,217	410,904
Community Development	59,513	58,595
Constabulary	3,961,863	3,879,412
Co-operative Development	249,931	242,054
Defence and Internal Security	24,380	18,036
Education	8,745,261	7,194,015
Forestry	626,329	519,941
Geological	302,085	—
Immigration and National Registration	73,403	70,859
Information Service	228,672	250,998
Judicial	363,947	372,661
Lands and Surveys	2,249,387	2,064,682
Land Transport	57,652	158,981
Legal	144,337	235,019
Legal Aid	—	—
Local Authorities	1,648,162	1,615,591
Marine	1,572,057	1,579,907
Medical	5,192,820	5,133,278
Miscellaneous Services	2,004,852	2,086,874
Municipality of Kuching	496,340	503,189
Museum	161,657	145,992
Pensions and Gratuities	2,684,466	2,251,990
Posts and Telegraphs	2,365,946	2,051,606
Printing	569,222	639,561
Prisons	304,735	289,445
Public Works Department	1,510,641	2,194,978
Public Works Recurrent	3,769,266	3,065,231
Secretariat	721,986	705,041
Trade and Customs	1,378,727	1,294,322
Treasury	524,936	527,977
Debt Charges	—	188,856
Contribution to Capital Account	10,228,661	—
Interest	102,137	—
Contribution to Development Fund	—	3,000,000
Public Works Non-Recurrent	—	2,156,877
	<u>\$57,956,444</u>	<u>\$50,587,350</u>

STATEMENT OF ASSETS AND LIABILITIES AS AT 31ST DECEMBER, 1958

Previous Year \$	LIABILITIES		\$
	Deposits—		
145,789.84	Security Deposits	145,678.89	
1,747,050.44	Others	1,681,950.76	1,827,629.65
10,550,710.06	Special Funds	15,707,947.46	
507,479.77	Current Accounts	610,312.06	
28,176.62	Allotments	21,846.39	
55,247.37	Drafts and Remittances	773,877.19	
46,440.17	Suspense (Turtle Trust)	11,924.49	
13,754.44	Colonial Development and Welfare Over-issues	503,593.32	
1,200,000.00	Joint Consolidated Fund	6,444,691.77	
17,439,233.74	Development, Welfare and Recon- struction Fund	161,321.80	
	Capital Account	14,345,850.98	
	General Revenue Balance:—	4,094,972.95	
	Balance as at 1.1.58	41,457,938.08	
	Less Transfer to D.W. and R. Fund	9,200,000.00	
	Add Surplus and Deficit Account	32,257,938.08	
		2,073,715.11	
	Add Appreciation of Investments	34,331,653.19	
		2,631,588.73	
	Add Profit on Sales of Investments	36,963,241.92	
		24,332.37	
41,457,938.08	Balance as at 31.12.58		36,987,574.29
73,191,820.53			81,491,542.35
 ASSETS			
2,228,705.03	Cash	3,382,567.33	
151,191.94	Fixed Deposits with Chartered Bank, Kuching	146,296.81	
43,757,684.67	General Investments:—		
	Sterling Securities at middle market value	44,350,955.64	
	262,988 shares in the Sarawak Electricity Supply Company	262,988.00	44,613,943.64
9,882,184.87	Investments on behalf of Special Funds:—		
	Sterling Securities at middle market value	9,641,800.39	
	Deposits with Joint Consolidated Fund	5,061,631.05	
	Deposits with Chartered Bank, Kuching	57,218.56	14,760,650.00
1,499,047.93	Trading Account—Food Control Advances:—		277,656.78
799,358.18	Special Advances	795,676.49	
10,768,434.76	Advances in anticipation of loans to be raised	13,798,431.43	
929,319.96	Others	2,071,568.98	
829,310.24	Current Accounts	16,665,676.90	
2,346,582.95	Remittances between Chests	855,745.88	
73,191,820.53		789,005.01	
			81,491,542.35

Public Debt

Debenture Bonds were issued during the year to the value of \$1,529,410. In addition, a sum of \$13,798,432 had been charged to Advances in anticipation of loans to be raised. The principal part of this latter sum was spent in the development of electricity through the Sarawak Electricity Supply Company Limited, a company wholly owned by the Government; in the provision of low-cost housing in Kuching and Miri and housing loans to Civil Servants; and in the development of air services and telecommunications.

Customs Tariff

The Customs Tariff is divided into two parts: import duties on tobacco, liquor, petroleum products, textiles, manufactured articles, and a variety of other commodities; and export duties on rubber, sago, pepper, jelutong, illipe-nuts, copra, damar, edible birds' nests and sea produce. In March, 1958 a maximum limit of \$10 per pikul was placed on the duty on illipe nuts. An export duty of five per cent *ad valorem* on bauxite was introduced in April, 1958. There is also a royalty of five per cent payable in addition on bauxite.

Excise Duty

Excise duty is levied on locally manufactured arrack, certain wines, matches and petroleum products.

Timber Royalties

The rates of royalty on timber were revised from 1st February, 1958, to a rate about thrice the former rate for converted timber and double the former rate for timber produced in the round.

Stamp Duty

Stamp duties are imposed on all documents required to be stamped under the provisions of the Stamp Ordinance (Cap.17). They include duty on cheques, bills of exchange, promissory notes, agreements, contracts, affidavits, declarations of trust and instruments creating an annuity. The duties were revised from 1st January, 1958, with an increase in the rate on certain documents and the inclusion of a wider range of documents to be stamped, the chief of these being a duty of ten cents on a Customs Declaration.

Income Tax

Income Tax is charged, levied and collected under the Income Tax Ordinance, 1949 (No. 16 of 1949) but, at present, only on

the incomes of companies incorporated or registered under any law or charter in force in Sarawak or elsewhere. On each dollar of chargeable income for the year of assessment tax is levied at 30 per cent.

Trade Licence Fees

The Trade Licensing Ordinance, a corollary of the Income Tax Ordinance, extends direct taxation, in the form of trades licence fees, to certain businesses. Fees vary according to the nature and locality of the business and are at lower rates in rural areas. From 1st January, 1958, businesses more than three miles from a bazaar pay a lower rate than that applicable to the bazaar.

For import and export trade businesses there is a graduated scale based on the value of imports or exports. Rates range from a basic fee of \$60 for imports not exceeding \$10,000 or exports not exceeding \$30,000, to 1 per cent for imports exceeding \$450,000 or exports exceeding \$950,000. When the income from a business is charged with income tax, no trade licence fees are payable. If an import or export business is carried on by a company liable to income tax on behalf of a firm not so liable (with intent to evade the payment of trade licence fees), the firm is itself deemed to have carried on the business of importing or exporting and it is liable to pay trade licences fees accordingly.

Miscellaneous Licences and Fees

Various licences and fees were increased with effect from 1st January, 1958. They included the following: rubber dealers' and exporters' licences; pilotage fees; registration of deeds fees; bankruptcy fees; poisons licences; fees for importation of animals; licences for slaughter and export of cattle; auctioneers and valuers licences; pepper dealers and exporters licences; hypodermic syringe licences; importation and exportation of corpses licences; exhumation of corpses licences; printing presses licences; church and civil marriage licences; ice licences. The fees for registration of Bills of Sale was doubled with effect from 1st April, 1958.

Head and Door Tax

Head tax at the rate of \$1 per adult male is paid by all Malays and some Dayaks. Most of the Dayak communities pay a "door" tax of \$1 per door, the "door" being the apartment in a Dayak longhouse occupied by a single family. These taxes are collected by the Local Authorities and the Government remits the bulk of the collection to the collecting agents.

Entertainment Tax

A tax is charged on all payments for admission to entertainments.

Estate Duty

Estate Duty is charged upon all estates above \$1,000. Rates are as follows:—

Where the value of the estate exceeds

\$ 1,000 but does not exceed	\$ 3,000	1	per cent
\$ 3,000	"	$1\frac{1}{2}$	"
\$ 5,000	"	$2\frac{1}{2}$	"
\$ 7,500	"	$3\frac{1}{2}$	"
\$10,000	"	5	"
\$20,000	"	$7\frac{1}{2}$	"
\$40,000	"	10	"
\$70,000	"	15	"

For estates over \$100,000 there is a graduated rate, introduced on 1st February, 1958, rising from 21 per cent on an estate from \$100,000 to \$150,000, to a rate of 40 per cent on an estate of over \$5,000,000.

IV

CURRENCY AND BANKING

Currency

LEgal tender is of notes and coin issued by the Board of Commissioners of Currency, Malaya and British Borneo.

The value of the Malayan dollar is two shillings and four pence sterling.

On 31st December, 1958 there were \$44,930,956 of Malayan currency in circulation. There was a decrease of \$480,000 in circulation during the year.

Banking

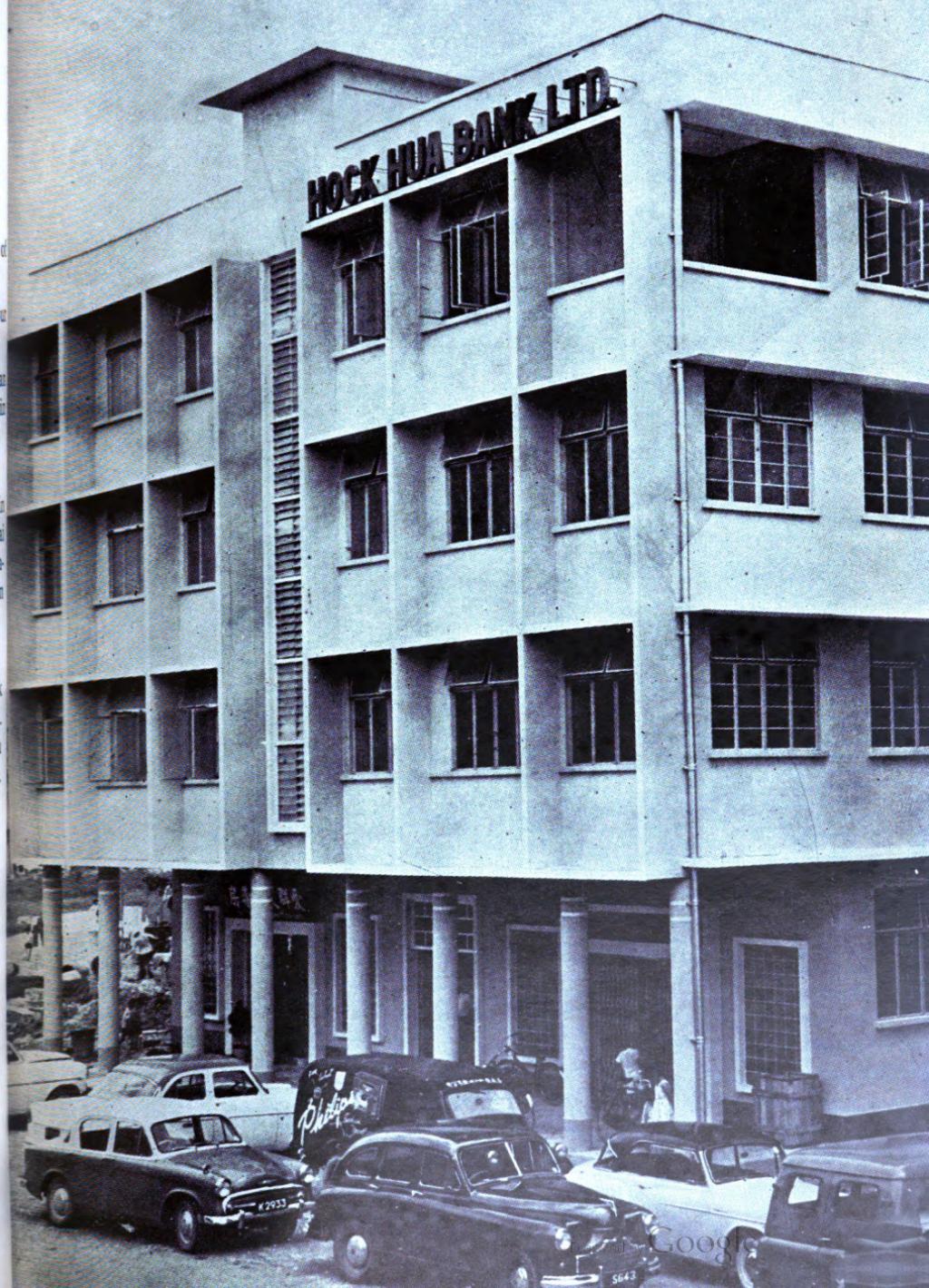
Banking is provided by the Chartered Bank with branches in Kuching, Sibu, Miri and Sarikei; by the Hongkong and Shanghai Banking Corporation and the Oversea Chinese Banking Corporation in Kuching, and by Chinese trading banks in Sarawak: Bian Chiang, Kwong Lee, Wah Tat and Hock Hua.

Post Office Savings Bank

There were 8,122 depositors in the Post Office Savings Bank at the end of 1958 compared with 7,959 at the end of 1957. The sum to their credit was \$3,581,039 against \$3,770,048 in 1957. Withdrawals, of \$1,547,850, exceeded deposits by \$274,577.

The new Hock Hua Bank building at Sibu. (*Soon Lee Guan*)

HOCK HUA BANK LTD.





V

COMMERCE

SARAWAK is a primary producing and exporting country, and her income is, to a great extent, derived from the export of her produce. In exchange, she gets what she needs by importing foodstuffs and other consumer goods. Apart from the processing of some local products such as coconut oil, there is little industrial activity.

The General Economy and its Main Characteristics

Rubber, pepper and timber are the three major exports and the basis of the economy. The importance of these three products is shown by the fact that their export earnings for 1958 were \$95,142,671, about 80 per cent of the total export earnings of the country, excluding the re-export of petroleum.

This dependence has advantages and penalties. Higher prices always lead to the export of greater quantities of these products, to an increase in the level of export earnings and revenue; and a depressed world market results in a slump, and reduced export earnings and revenue. In many cases, fluctuations in export earnings are very pronounced because of changes in world demand and supply.

There have been, indeed, substantial changes in world demand and prices. In demand, the general world trend has been expanding as might be expected from the rising economic activity in industrially advanced countries. The short-term fluctuations, arising to a considerable extent from major changes in inventory demand, have been pronounced and violent. There have also been structural changes in world demand. Technological progress has made possible economies in the use of certain raw materials (e.g. tin) and has produced synthetics or other substitutes for natural products—synthetic rubber for natural rubber, detergents for coconut oil.

Sorting fish at Oya in the Third Division. (*Peter Mooney*)

The Composition of Trade

Exports were \$463,736,226. These figures show a comparison with 1957:—

	1958	1957
Petroleum	\$347,498,004	\$376,932,495
Rubber	60,430,509	73,301,798
Timber	19,568,542	19,558,560
Pepper	15,143,620	17,231,981
Illipe-nuts	7,119,738	Nil
Sago flour	2,345,107	2,088,559
Jelutong	1,633,611	1,106,967
Bauxite	1,488,388	Nil
Copra	70,179	Nil

The oil shown above is largely re-exported. Crude oil won in Brunei is piped to and processed and refined at the Lutong refinery in Sarawak. This, with oil obtained from the Miri field in Sarawak, valued for 1958 at \$3,160,783, was re-exported. The total exports, exclusive of petroleum re-export but including Miri oil production, were \$119,399,005.

Sago flour is now a duty free export. An export of 16,508 tons was valued at \$2,345,107, against 12,780 tons valued at \$2,088,559 for 1957. *Copra*: 117.32 tons worth \$70,179 were exported. There was no export in 1957. This product is now largely absorbed by a local vegetable oil factory. *Illipe-nut* as an export is highly unreliable. There was none in 1957, but in 1958 6,205 tons worth \$7,119,738 were exported. *Jelutong* had an export value of \$1,633,611, against \$1,106,967 in 1957. *Timber* finds a ready market. Production is steady and should increase. 194,954 tons valued at \$19,568,452 were exported against 201,617 tons, valued at \$19,558,560 in 1957.

Bauxite deposits in the Sematan area are being worked by Sematan Bauxite Limited, formed in 1956. Early in 1957, 92,840 tons valued at \$1,488,388 were exported and the company hopes to increase this to 240,000 tons in future seasons.

Rubber. Export earnings of rubber at \$60,430,509 were slightly more than half the total export earnings. Export duties on rubber, \$6,736,403, were about 60 per cent of the total export duties for the year. The world market for rubber was rather depressed and the price declined from an average of \$106.42 per

pikul (133 lbs.) in 1957 to \$93.33 per pikul for 1958, but there was some improvement towards the end of the year. 38,542.5 tons (647,514 pikuls) of rubber were exported compared with 41,000.5 tons (688,808 pikuls) in 1957.

Pepper

The export of white pepper increased from 2,298 tons in 1957 to 5,137 tons in 1958, valued at \$9,986,029. The average price increased from \$100.30 a pikul to \$111.10 (16.8 pikuls equal 1 ton). Black pepper exported decreased from 11,442 tons in 1957 to 4,589 tons in 1958, valued at \$5,157,716. The price declined from \$69.45 per pikul to \$66.45. The large difference in price between white pepper and black encourages planters to concentrate on white.

Imports

Imports were \$433,786,897. Excluding crude oil, of \$301,186,789, they were \$132,600,108. Imports, largely foodstuffs and other consumer goods had declined by \$11,258,853 compared with 1957, due to decreased export earnings.

These are the details:—

	1958	1957
Food, excluding rice	\$ 33,582,614	\$ 37,400,510
Rice	14,846	17,447,719
Beverages, alcoholic	1,914,731	2,752,255
Beverages, non-alcoholic	2,168,775	2,115,357
Cigarettes and tobacco	6,333,159	6,477,054
Crude materials, inedible, except fuels	4,285,262	4,413,588
Mineral fuels, lubricants and related materials	310,420,426	328,523,910
Animal and vegetable oils and fats	443,816	484,772
Chemicals	9,987,744	9,570,775
Manufactured goods, classified by materials	20,521,108	22,175,003
Machinery and Transport equipment	16,747	18,963,265
Miscellaneous manufactured goods	8,564,552	9,081,387
Miscellaneous transactions n.e.s.	5,940,845	5,775,817

The prices of certain basic foodstuffs compared as follows with those for 1957:—

Commodities	1958	1957
Rice	\$ 387.90	\$ 371.36
Flour	332.98	334.20
Sugar	389.06	510.28
Salt	59.68	68.39
Milk	1,319.98	1,385.20

Cargo Tonnage

The tonnage discharged and loaded, including oil in bulk, was 5,392,760 compared with 5,855,648 for 1957:—

	Cargo	Discharged		Loaded	
		Oil in bulk	Cargo	Oil in bulk	Cargo
Kuching	tons	79,682	12,175	39,893	—
Sibu	"	54,416	10,636	27,139	—
Sarikei	"	7,111	288	6,087	—
Binatang	"	5,270	59	2,920	—
Tanjong Mani	"	473	—	191,384	—
Miri	"	15,037	—	10,392	4,906,093
Bintulu	"	506	—	10,533	—
Limbang	"	2,613	—	3,487	—
Lawas	"	1,408	—	2,464	—
Sundar	"	417	—	2,277	—
Total	"	<u>166,933</u>	<u>23,158</u>	<u>296,576</u>	<u>4,906,093</u>

Balance of Trade

The total volume of trade including the value of crude oil imports from Brunei, decreased by \$65,440,955 to \$897,523,123 from the 1957 total of \$962,964,078. Total volume of trade as shown below has steadily increased in the period 1950-58, if oil imports in the crude form from Brunei and oil re-exports are taken into consideration, although a slight set back for reasons noted was revealed in 1958. The visible trade balance for the country is favourable for all the years shown below; imports include crude oil imports and exports include oil re-exports:—

TOTAL TRADE 1950-58

Year	Total Exports	Total Imports	Total Trade	Visible Balance of Trade	
				\$	\$
1950	374,586,491	289,330,704	663,917,195	+ 85,255,787	
1951	508,349,436	383,745,457	892,194,893	+ 124,603,979	
1952	438,563,317	382,945,953	821,509,270	+ 55,617,364	

1953	424,728,257	394,912,338	819,640,595	+ 29,815,919
1954	425,969,557	397,826,075	823,795,632	+ 28,143,482
1955	477,460,040	442,347,927	919,807,967	+ 35,112,113
1956	487,000,860	463,886,635	950,887,495	+ 23,114,225
1957	499,534,619	463,429,459	962,964,078	+ 36,105,160
1958	463,736,226	433,786,897	897,523,123	+ 29,949,329

If, however, total imports do not include crude oil imports from Brunei and total exports exclude oil re-exports from Miri, the total volume of trade for 1958 was \$251,996,360; this does not show much increase over the total volume of trade of 1950 which was \$241,278,923. The volume of exports in the period 1950-58 showed considerable fluctuation, reaching the maximum of \$212,193,376 in 1951 and touching its lowest point, \$119,399,005, in 1958. The total volume of trade was at its peak in 1951, at \$333,125,219; the volume for 1958 was the second lowest during the whole period 1950-58. Imports, which did not fluctuate like exports, were generally on the increase up to 1956 when a total value of \$150,147,126 was reached, thereafter imports showed some decline. The visible trade balance had been favourable up to 1955; since then the country experienced trade deficits. That 1958 reached \$13,201,103. Apparently Sarawak was exporting too little and importing too much.

The following table shows exports and imports for the period 1950-58 together with the trade balance:—

TOTAL TRADE 1950-58

Year	Total Exports*	Total Imports**	Total Trade	Visible Balance of Trade
	\$	\$	\$	\$
1950	150,026,931	90,251,992	241,278,923	+ 59,774,839
1951	212,193,376	120,931,843	333,125,219	+ 91,261,533
1952	140,196,527	112,261,699	252,458,226	+ 27,934,828
1953	134,237,277	130,951,594	265,188,871	+ 3,285,683
1954	136,013,176	135,479,268	271,492,444	+ 533,908
1955	159,797,145	148,891,946	308,689,091	+ 10,905,199
1956	134,054,507	150,147,126	284,201,633	- 16,092,619
1957	126,202,648	143,858,961	270,061,609	- 17,656,313
1958	119,399,005	132,600,108	251,996,360	- 13,201,103

*Exports above include oil produced from the Miri field which in 1958 was valued at \$3,160,783, but exclude oil re-exports, that is, oil produced in Brunei but piped to be refined at the Lutong refinery situated in Sarawak.

**Imports exclude petroleum imports from Brunei.

Customs Revenue

Customs revenue collections were \$25,907,973 against \$25,366,476 for 1957. Export duties were \$9,274,404. Import duties were \$16,633,569 against \$15,062,335 for 1957.

Excise

Excise revenue comes mainly from three distilleries, from a match factory, and from oil consumption in Miri. The revenue for 1958 was \$888,720 compared with \$719,721 in 1957.

Tariff

There was no change in tariff.

VI

LAND UTILISATION AND TENURE

THE record of rights in land in Sarawak is a system of registration of title based on that currently in force in New Zealand.

Organisation

The Land Code, 1957, was brought into force on 1st January, 1958. The introduction of the Code and the re-organisation it entailed was a major task of the Department throughout the year. Three Manuals of Instructions clarifying departmental procedures and some two hundred specimen forms were completed and, with certain small alterations and amendments, the Manuals provided the basis on which the change was founded. Also introduced during the year were the Crown Land (Survey) Rules 1958, which provide for an increase in survey fees to more economic rates: The Land (Premia and Rents) Rules 1958, which provide for increases in premia and rental to economic rates commencing on 1st January, 1960: and the Land (Control of Sub-division) (Revocation and Variation of Approved Plans) Rules 1958 which grants to the Governor-in-Council powers, in certain circumstances, to revoke or vary draft plans approved by local authorities.

Staff Training

At present time six Junior Service Officers are undergoing training abroad, two under the Colombo Plan in New Zealand and four at the Technical College, Kuala Lumpur. The latter are studying for the Diploma in Surveying.

Agricultural Settlement

It has been the policy of the Department to anticipate as far as possible the demands for land for permanent agricultural settlement. Suitable blocks of land are selected and action taken to safeguard or extinguish Native Customary Rights and to plan and sub-divide the available land for alienation to new settlers. Many of these blocks were planned in connection with the Rubber Planting Subsidy Scheme which has considerably increased the demand for opening up new land.

Pressure on land is greatest near the main centres of the Chinese agricultural communities, because of the natural increase in population and the lack of capital to open up new land. Money lenders prefer to advance money for development in towns and so there has been very little productive development, other than that supported by the Government. The greater willingness of the younger Chinese to move further afield and the fall in agricultural prices have tended to reduce pressure slightly in some area, but the need for more land for agricultural settlement is still urgent, for in a primarily agricultural country the production of cash crops is of the greatest importance.

In the First Division Land Use Plans for the Bau area, and along the Simanggang road maps on a scale of 1 : 12,500 recording village boundaries were prepared, and a topographic survey of 3,850 acres of the Samarahan Rubber Estate, owned by Government, was completed.

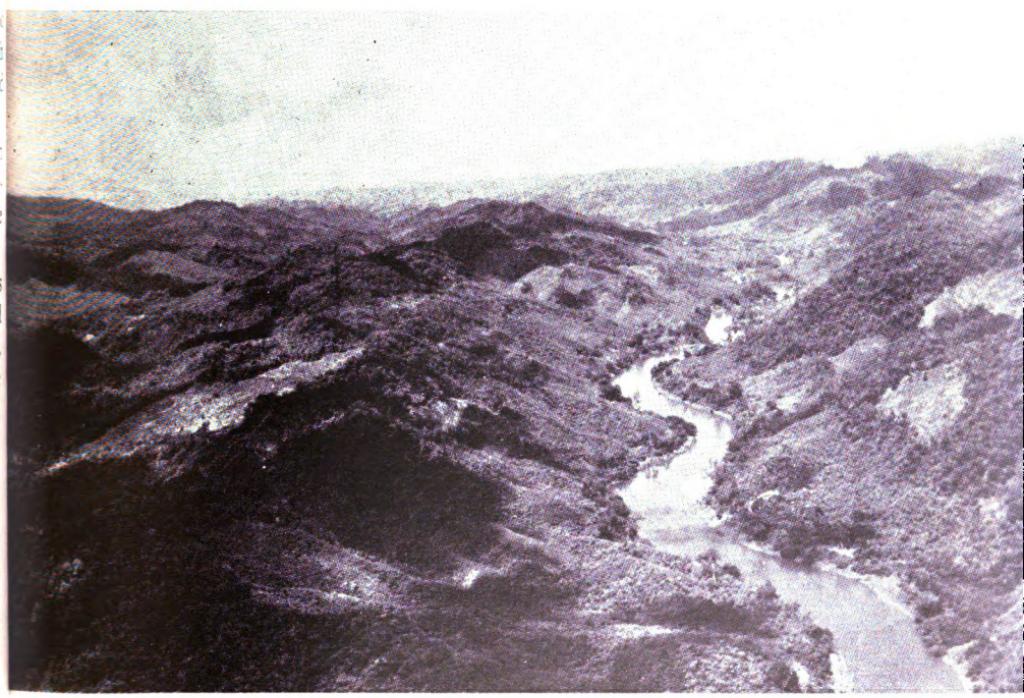
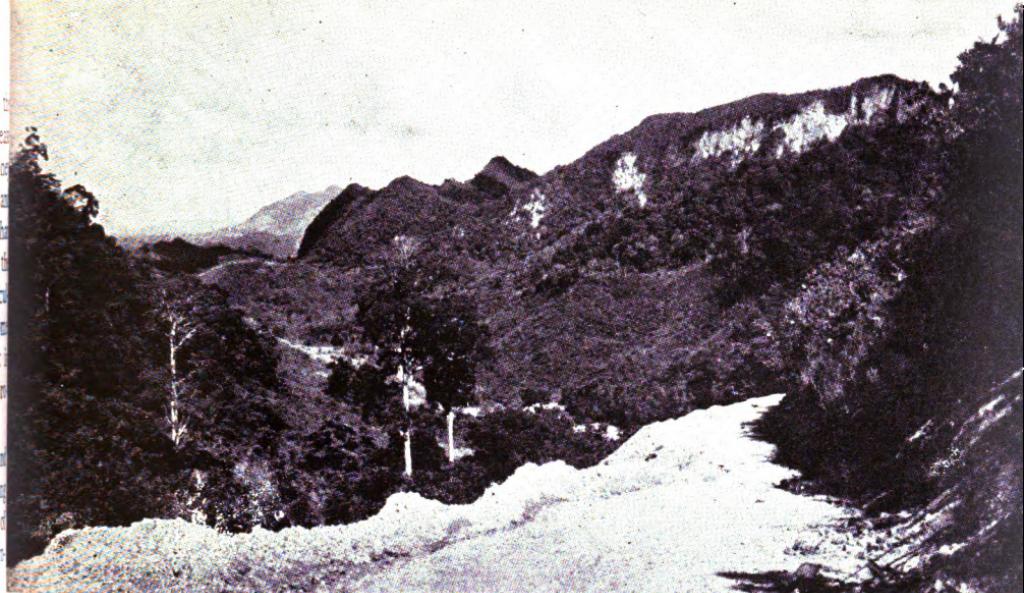
In the Second Division a scheme for a Foochow Settlement near Simanggang progressed well. Of the total area of 3,000 acres, nearly half has been cleared and 1,200 acres planted with rubber. The population of the area was two hundred and forty-five at the end of 1958.

The settlers all came from Sibu, Binatang and Sarikei, in the Third Division and their leaders show encouraging awareness of the need for close co-operation and integration with the local Malays and Dayaks.

In the Fourth Division the Sibieu Scheme, at Bintulu, was almost completed. 3,476 acres had been surveyed at the end of the year. At Bakam, Miri, perimeter surveys, investigation, and settlement of rights showed nearly 2,000 acres available for alienation. The Karap, Sungai Bakong, Scheme went ahead, and 1,500 acres out of 2,000 acres available were fully planted with rubber.

Land Classification

Land in Sarawak is classified as Mixed Zone Land, Native Area Land, Reserved Land, Native Customary Land and Interior Area Land. Mixed Zone Land may be held without restriction of race or community. Native Area Land may only be held by a member of one of the native races of Sarawak, or by one absorbed by marriage or other reason into a native community. The term "Reserved Land" covers many categories, and includes



Above: The Tebedu Road in the First Division, May, 1958. (*K.E.H. Kay*)

Below: Near Nanga Linau, Batang Balui, Third Division, September, 1958. (*K.E.H. Kay*)



Government Reserves for public buildings and roads, land reserved for development and forest reserves. Native Customary Land is land held under a system of customary tenure. Usually a right is created by the felling of virgin jungle and the occupation of the land thereby cleared and it was in this way that the majority of existing native customary rights were created. Under the new Land Code new rights may only be created in this way by permit; and this will prevent haphazard felling of jungle, the destruction of timber, and the creation of conditions which lead to soil erosion. Interior Area Land is that which may not be held under title, and over which native customary rights may be created if permission is granted.

Major reclassifications took place during the year in the First Division, where thirty-six square miles in two areas were gazetted Native Area Land, and in the Fifth Division, where one hundred and ninety one square miles were gazetted Native Area Land. The map facing page 34 shows the distribution of the various classes of land.

Applications for Land

A total of 5,387 applications for land affecting 32,831 acres were received during 1958. These were distributed as follows:—

Purpose	Applications	Acreage
Building	539	316
Rubber	2,694	20,035
Coconut	189	1,172
Pepper	117	306
Sago	572	4,712
Padi	349	1,653
Other Agriculture	641	2,856
Cattle grazing	18	546
Miscellaneous	207	983
	<hr/> 5,387	<hr/> 32,831

5,684 applications were outstanding from 1957.

5,576 applications were dealt with.

5,495 applications were outstanding at the end of 1958.

All categories except pepper show a fall from 1957; but the average size of the lots applied for increased, so that the acreage decreased but little. This was mainly because much of the A Nomadic Penan at Lio Matoh in the Fourth Division.
(I.A.N. Urquhart)

alienation for rubber was in the form of large schemes, where smallholdings of economic size prevail. The applications for rubber fell from 3,323 in 1957 to 2,694 in 1958 but the acreage decreased only from 20,065 acres to 20,035 acres.

Building applications also maintained a high level. This does not indicate an accelerated drift to the towns, for encouragement to Government servants to build their own homes with low interest loans and the relief of overcrowding by resettlement schemes produced a large increase in the lots available for alienation.

Interest in sago planting, especially in the Third Division, was maintained. A smaller number of applications were received than in 1957 but the area affected rose from 4,128 acres in 1957 to 4,712 acres in 1958.

Titles

6,826 titles were issued and 1,030 titles cancelled during the year, making the total extant at the end of the year 156,607. The greatest number of new alienations was in the Fourth and Fifth Divisions, reflecting the increasing development in the northern regions of the country.

Registration

8,816 instruments affecting land were registered in the Land Registries at Kuching, Simanggang, Sibu and Miri, a fall from 1957 and 1956. The number of transfers fell very considerably, but the number of charges registered fell but slightly, and still exceeded releases of charge by one half. The main reason for this is undoubtedly the continuing low price of primary products.

Surveys

Cadastral surveys still formed the main work of the Department, which is responsible for both survey on original alienation and any subsequent survey on mutation. During 1958 the Samarahan Estate large scale topographic survey covering over six square miles was the only one worthy of special mention.

Surveys kept pace with applications, although the reduction of the size of field parties for reasons of economy was reflected both in a decrease in production and an increase in cost per unit of survey.

Observation of a new secondary and tertiary triangulation scheme in the Baram district of the Fourth Division was almost completed.



The Directorate of Overseas Surveys completed planimetric compilation over the whole of the Rejang-Bintulu block of 1:50,000 mapping, and published a further thirteen sheets, making a total of nineteen so far published out of the sixty-two sheets comprising the block.

The compilation of detail of the Lundu-Bau-Kuching block was completed. This is a continuation of the Santubong-Lingga block completed by the Directorate of Overseas Surveys in 1957. The fair drawing for reproduction of the first sheet to be published on the 1:125,000 scale was also completed.

Land Valuation

A method of rent revision was approved, and the work of revision began. By the end of the year 1,081 titles had been revalued and new rents assessed. The land sales records, which have now been kept for four years, were most valuable in this work. Valuations in connection with the acquisition of land by Government, and for stamp duties, death duties, and housing loans were carried out.

Whilst agricultural land values have continued to remain steady, values in Kuching, despite the decrease in trade, have slowly crept upwards, although they were already unrealistically high. In Sibu, however, land values have begun to fall, a trend which will be encouraged by the new and improved roads which have made much more land available in the environs of the town.

HOUSING AND TOWN PLANNING

General

The services of a qualified town planner are still urgently required. In the meantime the Department continued to prepare draft plans, on behalf of landowners, for submission to the Kuching Municipal Council, the Kuching Rural District Council for that area affected by the Land (Control of Sub-division) Ordinance, and the Sibu Urban District Council.

Kuching

Major developments during the year have been in connection with the new port at Tanah Puteh, now under construction, and the access road thereto. In the same area the new power station is being erected. In anticipation of the future development near the new port a start has been made on the preparation of the road and zoning plans covering the area.

The municipal low-cost housing scheme continued to progress well. The last seven-storey block was occupied on 1st August. At Maong, three miles from the centre of Kuching, construction of twenty-two shophouses is under way. At Batu Lintang filling has been completed on the site for the new suburban shopping centre, and the survey of the layout was completed. A preliminary scheme was prepared for the subdivision of about 177 acres of Crown land to the south of Sekama Road. The subdivision of this block of land should help to ease the present shortage of land available for housing purposes, and encourage more orderly development in that suburb by providing the basis of a planned system of roads for extension into surrounding areas as they become more fully developed.

Simanggang

A period of considerable development began and should continue for some time. Improvement of communications, in the shape of an airstrip, now operational, and the main road to Kuching, under construction, together with some Government building, have combined to create a feeling of optimism. The hospital neared completion, and a piped water supply scheme was started. The first block of all brick and concrete shophouses in Simanggang was all but complete by the end of the year and the industrial area was extended. Because of this activity proposals were submitted to amend the schedule of the Land (Control of Subdivision) Ordinance to cover the Simanggang town district.

Sibu

In Sibu, as in other bazaars of the Third Division, the need for planning continued to be urgently necessary. The rapid development of the last ten years made previous planning and zoning wholly inadequate. Despite the trade recession the construction of thirty-one new shophouses, many of them four-storey, was completed, and all but a few occupied. Four other buildings for commercial purposes were finished. There was, however, a sharp drop in the number of requests for the preparation of draft plans of subdivision within the Sibu Urban District Council area.

The Urban District Council continues to approve applications for sub-standard terrace housing. There are well over one hundred buildings of this type now in existence. Nearly all Malay kampongs are overcrowded and new building sites are

difficult to find. It will be necessary to acquire further land for re-settlement.

Miri

The development of Miri is a paradox, for the town is essentially an oil town, and owes its existence to the oilfields; yet its growth is limited to those areas no longer required for the purposes of winning oil. Town planning in Miri therefore reduces itself to laying out to the best advantage areas of land released from the oil company's concession. The town was heavily bombed in 1945, and this, combined with the shortage of land, meant that overcrowded conditions in sub-standard houses were rife. Resettling the slum areas has taken long, but is now complete in Kampong China. In Kampong Dagang progress has been slow, and in two cases legal action has been necessary to remove condemned buildings.

The industrial area north of Yu Seng Road was slowly developed along imposing lines. Good, substantial, concrete factories are being erected. One is already in production and two more are ready for occupation.

Marudi

Some three years ago the first edition of the Marudi town plan was prepared and under this it was proposed that a considerable area of land behind the bazaar should be bought to provide residential lots for the slum clearance programme, and room for further orderly development of the town. By the end of 1958 the purchase of the land had been completed, drains had been dug and earth roads formed. Numerous houses were built by owners resettled from the slum areas, and there is a continuing demand for residential lots. The layout of the industrial area was completed and four lots were auctioned in December. Smokehouse lots were surveyed.

In other places

Existing towns and townships are continually growing, and new ones developing. At the 34th mile Simanggang Road, and at Muara Mongkos, Serian, two new bazaars were laid out. After much investigation a new site for the 27th mile bazaar on the Simanggang road was chosen and costing and planning undertaken by the Public Works Department. The new bazaar will replace the present one which is subject to flooding. At Balai Ringgin the new layout was not completed and six local traders

moved into temporary shops to make way for the new Simang-gang Road. At Serian, Tebedu, Bau, Krokong and Sebangan 159 new residential lots were laid out. This should help to reduce the squatters near these bazaars.

At Pantu, in the Second Division, a road plan was drawn up to control alienation and subdivision and encourage development in depth. In Engkilili the amended town plan was completed and approved.

At Sarikei in the Third Division four new shophouses were completed, and sites for a new market and a new District Council Office building were alienated; and at Binatang satisfactory progress was made in the re-building of three blocks of condemned shophouses fronting the Rejang River. Government made loans to the proprietors for this reconstruction. The Binatang District Council were granted a lease for the site of their new office building.

At Julau the construction of five new concrete shophouses made good progress. A topographical survey was undertaken to provide data for future development, for there is a strong demand for additional sites for commercial purposes. Planning in Julau is difficult because of the very broken nature of the ground. Much of it is below flood level.

In Bintulu, in the Fourth Division, increasing use is being made of the airstrip, and the Sarawak Shell Oil Company propose to lengthen it in conjunction with their proposed offshore drilling programme. A cinema and a cinema-hotel site were auctioned and a residential area north-west of the airstrip was planned. In Belawan three industrial lots were laid out.

At Lawas in the Fifth Division thirty-six shoplots in the new bazaar were alienated, ten by auction and twenty-six directly to owners of shops in the old bazaar. Negotiations are in hand for the surrender of land for a proposed residential layout and an extension to the Government housing area. At Ukong, of five new shops under construction, one was completed by the end of the year.

VII

PRODUCTION

AGRICULTURE

AGRICULTURE is the mainstay of over two-thirds of the people of Sarawak. Of the estimated area of 47,000 square miles approximately 11,500 square miles are devoted to agriculture in its various forms. Although much of the flat deltaic and coastal regions consist of deep peat or muck soils difficult of reclamation, there are numerous compact blocks of land each of several hundred acres or more capable of producing excellent yields of wet padi when properly farmed. The hinterland and far interior consist largely of steeply undulating hills with surprisingly little flat land even in the valleys. The soils are generally poor and thin and their poverty has been accentuated by wasteful practices in the pursuit of dry padi crops over many decades. There are occasional outcrops of basic and intermediate igneous rocks and of limestone; where these occur there is usually a marked improvement locally in the fertility of the surrounding alluvial soils.

The agricultural economy is weakly diversified particularly in regard to export cash crops which are, in order of importance, rubber, pepper, sago and coconut. Rice is by far the most important crop grown for local consumption, but the total production from both wet and dry rice is still well below the total requirements of the population. But while a strong preference for rice as a staple food may be shown amongst all races it is interesting and significant that sago, tapioca, maize, yams and sweet potatoes in the rural areas, and wheat flour (in the form of bread in the towns), are all used even in normal times to supplement rice.

In vesting the Department of Agriculture with the triple responsibilities of agriculture, veterinary services and fresh-water fisheries, the Government has gained the advantage of unified control in these closely related services. The general agricultural policy is to increase and diversify agricultural productivity, (having particular regard to the need to improve food supplies,

especially rice and all forms of animal protein); to increase exports of cash crops (particularly rubber, pepper, coconut and sago); to introduce and develop new crops shown by experimentation to be of economic significance; and to promote and assist in the sound agricultural development of new lands.

From the farmers' viewpoint 1958 was unsatisfactory because of low commodity prices for the main cash crops. There was the characteristic swing, shown in a period of recession, in favour of increased food-crop production including both wet and dry padi. Particularly noticeable was the extended growing of vegetable and food crops during the fallow season in a number of wet padi areas having easy access to the main roads.

While the main emphasis in agricultural development continued to be on rubber, staff improvements enabled more attention to be paid to other activities. Prominent among these were the distribution of increased supplies of planting material and improved livestock, intensified and extended pest control services, training courses for farmers in a wide range of subjects, better advisory services following wider and more regular contacts with farmers, expanded tractor hire and milling facilities, and regular broadcasts on technical subjects in the vernacular.

Rubber

About 295,800 acres are, it is estimated, under rubber, of which 13,285 acres comprise the only five estates of over a thousand acres in size. One of these is the Government-owned Rubber Fund Estate at Samarahan in the First Division. It is known that indiscriminate planting of unselected rubber continues in the interior and in the absence of reliable records it is probable that the acreage of rubber in Sarawak is substantially greater than the above estimate. Reasons cited as the cause of the drop in production in 1958 were lower prices and a bumper illipe nut crop which provided an alternative and substantial cash income to a large number of rubber growers. The bulk of the rubber produced is handled under licence by numerous sundry goods merchants scattered throughout the country and trading in a small way. Dealers numbered 2,670, exporters 110 and owner-exporters 3. The several Ordinances relating to the rubber industry were revised and a new Ordinance will come into force with effect from 1st January, 1959.

Under the Rubber Planting Scheme introduced in the middle of 1956 and described in earlier Reports, out of an approved

Harvesting *padi* at
the Department of
Agriculture
Padi Experimental
Station at Paya
Megok, 27th mile
Kuching/Serian
Road. (G.S.I.S.)





total of 34,855 acres (5,345 farmers) in respect of new planting plus 3,756 acres (612 farmers) for replanting, 21,847 acres have been planted with high-yielding rubber. Applications to participate in the scheme are considered annually by a Board of Administrators and by the end of 1958 applications had been received to plant an additional 20,000 acres in 1959.

An interesting development is the emergence of communal block plantings such as the 500-acre block at Roban in the Second Division and 105 acres at Senga in the Fourth Division, where a friendly yet competitive spirit between Malay, Dayak and Chinese planters has undoubtedly done much to stimulate progress in these schemes. The outstanding project under the scheme is the 3,400-acre block near Bintulu in the Fourth Division, planted by the Foochow community. Apart from being an excellent example of communal effort showing above average technical standards, it also illustrates how the resources of the Department of Agriculture are utilised to the best possible extent when a community is represented by co-operative leaders. Most of the area has been planted with seedling rubber for later budding in the field. The clones used, apart from their high yielding qualities, are known to provide approved parent trees, and so this area has a future as a source of approved clonal seed either for internal use or export. Long-term plans for this project include an all-weather access road and one or two modern factories for central processing of latex. Work on the former has already been started.

High standards of husbandry are demanded from approved applicants under the Rubber Planting Scheme, to fulfil the declared objective of bringing first-class high yielding rubber into bearing in 6 to 6½ years. It is recognised, however, that good reasons exist why some would-be planters are unable to conform to these high standards and are therefore unwilling to participate in the scheme. As a measure of assistance to them, high-class planting material was made freely available, at cost, from October. A total of 30,570 clonal seedling stumps and 522 yards of budwood sufficient to plant up approximately 180 acres, was sold under this arrangement.

The availability of high-class planting material for 1958/59 was assured by the importation of 11,849,666 clonal seed from approved nurseries in Malaya. Small quantities of clonal seedling stumps and budwood were also imported.

A Melanau Fisherman. (*Peter Mooney*)

The Government's policy of opening up the remote interior by building a network of airstrips made it possible for the first time for reasonably large quantities of seed to be delivered to hitherto almost inaccessible communities. The most important of these ventures, styled "Operation Airlift", resulted in the air freighting of 200,000 seeds into Long Akah in the Fourth Division, for issue to 673 planters. The trip, done by air in less than an hour from the nearest large town, takes at least three days by river under the best conditions.

Distributions from departmental nurseries to approved planters in all Divisions amounted to 1,891,458 clonal seedling stumps and germinated seeds, a not inconsiderable feat considering the lack of road communications and the difficult terrain to be traversed. Where a system of block planting is being followed and access is easy, ensuring regular supervision, a policy of budding in the field under departmental supervision is followed. Some 14,573 yards of budwood from high yielding clones were used in this work. Supplementary to these issues of planting material were such items as 11,204 lbs. of cover crop seeds, 18,150 lbs. of weedicide and 623 rolls of barbed wire. Subsidy payments in cash to approved farmers amounted to \$193,037.

The burden of organizing and maintaining internal supply lines on a country-wide basis fell, as the scheme grew, more and more heavily on the Department's staff and it was imperative that relief in some form should be granted. Accordingly steps were taken to put fertiliser distribution out to tender and from November buffer stocks of approved fertilisers were established and maintained at thirty-four strategic centres. 1,083 tons of fertiliser were issued and delivered to approved planters during 1958.

The interest shown in the Rubber Planting Scheme was such that the original five-year target of 10,000 acres has already been well encompassed in less than half the time. It was deemed wise, as long as interest was maintained, to continue with planting and \$12,000,000 was set aside to cope with a revised target of 40,000 acres. But the response was so great that still a third target has now been set, of 60,000 acres; and to meet part of the additional expenditure a cess of 2 cents per lb. on all rubber exported from Sarawak, as from 1st January, 1959, was imposed. An undertaking was given that the proceeds from this cess will be devoted exclusively to the furtherance of the rubber industry.

Rice

The export of rice either as rice or padi (unhulled rice) is prohibited. To encourage production the Government continued to offer a guaranteed price of \$14.50 per pikul for padi delivered to Government Purchasing Centres and a total of 2,362 tons was purchased. The local market price, however, remained above the support figure.

The larger acreage is grown as dry padi on the steep slopes of the interior on a bush fallow system. The actual area planted is not known but a tentative census in the 1958/59 season indicated, very roughly, that it may be as much as 208,000 acres. Yields of dry padi are usually much lower than those of wet padi, a yield of 125 gantangs (gallons) per acre being regarded as satisfactory. Wet padi is grown on river levees, deltas and coastal flats and the current season's acreage is estimated to be 73,000 acres. The substantial recorded increases in the estimated planted areas compared with those of the previous season are, in part, due to improved census methods. In regard to wet padi however, it is also a result of the encouragement given by the Government, and to the increased acreages planted by the Chinese after a period of low prices for rubber and pepper. Yields of 400 gantangs (gallons) and over per acre are common in certain selected areas, but generally the low standard of cultivation and the almost complete lack of drainage and irrigation works results in a much lower average yield. There is no double-cropping, but fallow season cultivation with other crops is practised near centres of population. Except in small areas in the First, Second and Fifth Divisions the 1957/58 season was generally good. At the end of the year the prospects for the 1958/59 harvest were also above the average.

The period of recession through which Sarawak has been passing is reflected in the sharp drop in the imports of rice, from 46,982 tons in 1957 to 38,275 tons in 1958. Total imports however, still remain substantially higher than those for the six years immediately following the war.

The distribution of insecticide under the free anti-pest campaign was greater than in former years but this represents an improvement in the service rather than an increase in pests. Before the 1957/58 harvest extensive areas of dry padi were treated for *leptocoris acuta* by means of swing-fogs. Localised outbreaks of army worms (*spodoptera mauritia*) attacking nurseries proved

to be severe when their presence went unreported. Rats were the only other pest of major importance but supplies of zinc phosphide are so readily and freely available that extensive rat damage is evidence of neglect on the part of the cultivator.

Pepper

There are no large pepper estates but the small-holding system of growing which is practised is probably the most intensive of any country where pepper is grown. At least up to 1957, Sarawak maintained its position as a supplier of one-third of the world's pepper, but the industry has now reached a critical stage. Production is rapidly easing off from the largely speculative planting stimulated by the high prices of 1950-1952. The enforced change from the traditional pre-war shifting cultivation through primary forest, combined with the increased acreage planted after the war, reveals large gaps in the fundamental knowledge of economic production under local conditions. Exports may decline further, at present prices, until advice based on experimental work can be applied by the growers.

The bulk of Sarawak pepper is shipped through Singapore, but the percentage decreased from 82 per cent in 1957 to 70 per cent in 1958.

A study of main world trade statistics in pepper, extracted from *Plantation Crops—Commonwealth Economic Committee*, H.M.S.O. 1958 — brings out the interesting fact that post-war annual production has yet to reach the mean production rate in the years 1937-1939.

WORLD EXPORT OF PEPPER IN TONS

	1937 to 1939 (mean)	1952	1953	1954	1955	1956	1957
Sarawak	2,700	4,000	9,000	15,450	16,300	19,800	13,750*
India	1,150	13,200	11,600	15,400	12,350	12,200	15,250
Indonesia	50,900	6,800	7,500	12,450	13,250	18,600	12,500 (estim.)
Rest	4,850	1,300	1,000	800	1,500	1,300	1,250 (estim.)
TOTAL	59,600	25,300	29,100	44,100	43,400	51,900	42,750 (estim.)

* Sarawak 1958 = 9,727 tons.

The Marketing Advisory Committee instituted towards the end of 1957 has met on six occasions and recommendations

to improve the present system of marketing pepper were submitted to and are now under consideration by the Government.

"Foot-rot" disease in pepper, caused by a species of *phytophthora*, has lately been passing through a quiescent phase but this is probably temporary and scientific study of the disease continues. Although natural leaf infection was found in a bed of young cuttings at Tarat Agricultural Station none was detected in commercial field plantings, from which it may be tentatively inferred that the casual organism of "foot-rot" is strictly soil-borne. A living herbarium of varieties collected locally, and in Indonesia and in India, has been established and laboratory tests to determine any individual degree of host resistance to "foot-rot" are in progress. It is hoped to initiate similar tests under field conditions in the near future.

Besides the *phytophthora* sp. known to cause "foot-rot", twenty-two species of other fungi have been isolated from pepper. *Fusarium solani* and *rhizoctonia* sp. are the most common and appear to be the earliest colonisers after prior infection by *phytophthora*. A pathogenicity test on pepper seedlings indicated that only *pythium splendens* and *sclerotium* sp. were able to infect intact tissue. These two fungi seem to be typical damping off organisms on pepper seedlings.

Sago

The area under sago is not accurately known but is believed to be roughly 150,000 acres, mainly in the Mukah, Oya and Dalat districts of the Third Division and Beladin, Saratok and Pusa in the Second Division. Yields per acre are generally low and the methods of flour extraction are frequently primitive, producing a poor quality flour. The absence of clean water in the main producing areas contributes much to the poor quality. Although the volume of exports has been maintained over the last few years despite prices, this merely reflects the unhappy fact that most sago-producing communities have virtually no other economic activity to which they can turn.

The substantial rise in exports during 1958 from 12,718 to 16,508 tons is attributed largely to the effect of the export duty on sago flour in October, 1957. The Sago Advisory Committee met twice and devoted considerable time to a review of export standards and means to be taken locally to ensure their maintenance.

Coconut

This is entirely a smallholders' crop with the largest aggregate acreage planted in the First Division. The total acreage, put variously between 25,000 and 50,000 acres, comprises either scattered palms in the vicinity of houses or loose groups of small-holdings, seldom larger than five acres. In both the home and export markets the coconut is an important crop and a net export of only 107 tons of copra during 1958 markedly emphasises the need for planned development of this potentially valuable cash crop. Recently it became possible to consider ways and means to increase the planted acreage, to improve supplies of fresh nuts for home consumption, to make Sarawak self-sufficient in oil production, and to make copra a valuable export. Towards the end of the year plans were completed to launch a subsidised coconut planting scheme on 1st January, 1959 with the objective of planting a minimum of 10,000 acres before 1965. A sum of \$1,275,000 has been set aside for this purpose.

Minor Crops

Maize, sweet potatoes, tapioca and yams are all widely planted as rice supplements but always on a small scale. Near the larger towns vegetables are intensively grown by Chinese market gardeners and in Miri a considerable export trade in fresh vegetables to Brunei has been developed. Bananas are a common crop in riparian areas and pineapples, generally planted in peaty areas, are plentiful in their season. Coffee is cultivated to a small extent in all the Divisions and over the last two years interest in planting has steadily increased: 13,014 Robusta and Excelsa coffee seedlings were issued by the Department to meet farmers' demands. Tobacco is gaining in popularity and if properly organized on sound technical lines could play a very important part in the country's economy. Local fruits are planted in mixed cultivation, and because quality generally is low the demand for high-grade planting material of the more economic fruits far outweighs the supply. As part of its development programme the Department has recently begun to establish in all Divisions nurseries for the large-scale production of budded rambutans and durians. Distributions during 1958 amounted to 2,114 budded plants of these two fruits.

Research and Extension

The Department had a year of steady progress and consolidation, in accordance with its planned programme of develop-

ment initiated in 1957. The staff position, both senior and junior, materially improved and it was possible towards the end of the year to give consideration to long-overdue research and extension projects. The Research Branch was strengthened by the creation of a Soils Division for which a new Soils Laboratory was built and officially opened in October. Comprehensive plans for agro-nomical studies of both rice and pepper were under consideration following the arrival of two specialist officers to undertake the work. Also, and in addition to the current pathological studies on pepper, an economic survey of the pepper industry was begun in November.

The plans for the reorganization of the Department in accordance with modern concepts of integrated research and extension had advanced far enough by November for an Extension Branch to be formed. In its planning, the increasingly important role played nowadays by women in all forms of extension work has not been overlooked, and particular care has been devoted to ensuring that the women of Sarawak will be given ample opportunity for full participation.

Agricultural Education

For the first time in the history of the Department a co-educational training course was instituted at the School of Agriculture in Kuching in November, 1958. This followed the acceptance by the Government of the proposal to establish an Agricultural Extension Branch. The course is divided into two phases. The first, of nine months, provides training in simple agriculture on a broad basis while the second, of six months, is concerned with lectures in extension methods and principles and, in the main, intensive practice in the techniques trainees will be expected to develop when posted for field duty. The trainees include sixteen Junior Agricultural Assistants from the Department of Agriculture and Community Development Centres and five Home Demonstrators — all women — who number in their ranks two Land Dayaks, a Malay, an Iban and a Melanau.

An important adjunct to the Rubber Planting Scheme is the provision of training facilities for rubber growers. Twenty courses, each lasting sixteen days and held at the Rubber Fund Estate at Samarahan, were attended by 300 smallholders of all races. These courses have proved popular and judged by the work of the trainees subsequent to their return home, undoubtedly did them much good. Short courses covering a wide range of

general agricultural subjects and freshwater fish culture were held at different times in three Divisions and 303 farmers attended. Numerous discussions, demonstrations and field days were also held. In addition to technical literature written in the vernacular and distributed as pamphlets, simple technical articles were published in the Information Office papers *Pembrita* and *Pedoman Ra'ayat*. In co-operation with Radio Sarawak a series of discussion broadcasts in Chinese, Malay and Iban called "Agricultural Forum" and "Calling all Farmers" was reported to have an enthusiastic following.

ANIMAL HUSBANDRY

Livestock husbandry plays at present but a small part in Sarawak's rural economy and no mixed farming in the generally accepted sense is practised. A provisional livestock census indicated the number and dispersal of the more important stock as follows:—

	<i>Buffaloes</i>	<i>Cattle</i>	<i>Pigs</i>	<i>Goats</i>
First	30	413	28,359	1,749
Second	78	1,506	22,655	1,266
Third	251	1,928	38,483	2,097
Fourth	1,049	795	9,443	778
Fifth	4,748	258	7,272	241
TOTAL	6,156	4,900	106,212	6,131

Very limited use is made of buffaloes for rice cultivation and draught. There are some herds of imported cattle but management is not based on any practical system and Sarawak relies almost entirely on imports for its supplies of beef. Milk production, generally under unhygienic conditions, is practised to a negligible extent by a few Indian and Chinese cattle owners. The small imported herds of Red Sindhi, Kelantan and Bali breeds kept at Tarat Agricultural Station to allow study of their reactions under Sarawak conditions have made only mediocre progress, largely because of the high incidence of intestinal parasites and endemic piroplasmosis. Tick infestation remains a serious problem and animals are sprayed weekly. Demands for improved stock from the Department's herds of Middle White, Tamworth and Berkshire pigs remained unsatisfied even though issues from departmental piggeries numbered 150 boars and 188 sows and gilts. Goats and, except for a few large commercial units,

poultry, are extensively kept in small numbers for home consumption. Hatcheries for the production of day-old chicks and ducklings are a feature of the larger towns. The livestock import figures for 1958 compared with those for 1956 and 1957 are:—

	1956	1957	1958
Cattle and Buffaloes	595	998	705
Pigs	17,707	13,679	7,437
Poultry	31,949	34,592	36,264

The significant decrease in the number of pigs imported is believed to be the result, at least in part, of the Department's policy of injecting new blood into local herds through the distribution of selected boars and to a higher survival rate amongst weaners following better and more extensive veterinary services.

There have been no reported cases of rabies, rinderpest, foot-and-mouth disease, swine fever or other major epizootics. One case of babesiasis involving thirty-six cattle was reported in the Fourth Division but all responded to treatment. There were five known outbreaks of pasteurellosis in pigs, and treatment saved approximately 50 per cent of the 1,200 animals infected. Melioidosis was confirmed in a batch of imported goats. No further cases were reported after the survivors had been slaughtered.

The main preventive treatment given is against ranikhet (Newcastle) disease in poultry and comparative figures for 1956, 1957 and 1958 are as follows:—

	1956	1957	1958
Ranikhet	102,884	172,142	227,792
Fowlpox—poultry	—	4,791	22,987
H. Septicaemia—cattle	103	209	65
Pasteurellosis—pigs	210	365	1,379

The Veterinary Clinic continued to provide facilities for the diagnosis of disease and treatment of animals. Pigs, of which 4,091 were treated, were again the stock receiving most attention. Other animals given treatment were 198 cattle and buffaloes, 558 sheep and goats, and 135 domestic pets. Diagnostic work consisted of the examination of 844 blood films and 606 faeces samples. Meat inspection is the responsibility of the Municipal Health Department, but the Veterinary Branch co-operates and assists when required.

FISHERIES

Fishing is an important local industry but on the whole is not well organized. Fishing methods used are varied and numerous and, although at times they may appear crude, they are relatively efficient in operation. Marketing is almost entirely in the hands of Chinese middlemen. The encouragement given in 1957 to instal inboard engines in fishing boats was reflected in an increased demand for loans to meet the cost, and seventeen engines costing \$18,743 were installed.

It was with great reluctance that a decision was taken by the Government to close down the Marine Fisheries Division of the Department in June. Within the limited resources of the trained staff available the development of freshwater fisheries was intensified, to provide a readily available source of animal protein for people living in the interior. Two hundred and eighty-three new ponds were constructed and stocking material was distributed, comprising fingerlings of *tilapia mossambica*, *trichogaster pectoralis* and *cyprinus carpio* to a total of 24,226, compared with 12,737 in 1957. Those who received the fingerlings were not all of the same race and numbered eighty-six Chinese, twenty-six Malays, a hundred and thirty-three Dayaks, nine Javanese and twenty-six others.

Imports of mixed Chinese carp by three dealers in Kuching increased from 54,000 fry in 1957 to 68,700 fry in 1958 with about half that number coming direct from Hong Kong following the opening of a direct air service from there. This has lowered the price of marketable carp and fry.

FORESTRY

A description of the natural forest, covering nearly three-quarters of Sarawak, appeared in the 1955 Report. The Government's forest policy, and the principles governing the administration of the Forest Department, are also set out in detail in the 1955 edition.

Exploration

In the Bintulu District of the Fourth Division, extensive exploration was undertaken in drainage of the Binio, a tributary of the Pandan. The forest is extremely variable, mostly of rather poor quality, and the few patches of rich forest, mainly swamps containing *ramin* (*gonystylus bancanus*) and deep podsols carrying

good stands of *bindang* (*agathis borneensis*), are not sufficiently extensive to warrant reservation.

In the Miri District of the Fourth Division an investigation was made of the extent of the rich stands of *dacrydium elatum* in and around the Lambir Forest Reserve, and at the same time a soil survey was made to correlate development of the tree with variation of soil characters.

In the Fifth Division, exploration aimed mainly at the study of the distribution and vegetation of podsolic soils, and on the need for the preservation of protective forests in the headwaters of the Limbang and Trusan rivers.

Constitution of Permanent Forests

The area of the permanent forest estate was increased by 186 square miles during the year, bringing the total to 10,963 square miles, equivalent to about 23.1 per cent of the land area of the country. The newly constituted forests include, in the First Division, the Datu Protected Forest, which is a beautiful coast reserved mainly for amenity, the Apeng Forest Reserve, a small area that is to serve as a source of communal supplies, and extensions to the existing Gunong Poi and Sedilu Forest Reserves; in the Second Division, the Rimbas Forest Reserve, a small but valuable swamp forest; in the Fourth Division, the Tatau Protected Forest, a large area of swamp, and extensions of swamp forest to the Beluru and Kuala Sibuti Forest Reserves.

Public interest in communal forests continues to grow steadily if slowly, and is extending outside the First and Third Divisions. During the year two small communal forests were constituted, and four more are under preliminary proclamation.

Forest Inventories

In Sarawak the soils, and consequently the vegetation types, are so varied in quite small areas that proper management of the permanent forests on a basis of sustained yield is impossible unless stock-maps are carefully prepared. The method generally used is to make a preliminary map from aerial photographs, and to check the interpretation and assess the quality of the forest by the detailed examination of sample strips. The area covered by these surveys during the year was forty-eight square miles, mainly in the Fourth Division. There was also some intensification of previous preliminary surveys over more limited areas.

Working Plans

In the Fourth Division a plan of management for the newly constituted Tatau Protected Forest was brought into force. The plan covers 101 square miles of forest, of which 90 square miles are considered productive. The rotation is 70 years; felling rules are laid down, and silvicultural operations are prescribed to follow the fellings.

The total area of permanent forests now under plans of management is 558 square miles.

Silviculture

Sarawak relies mainly on methods of natural regeneration for the rehabilitation and improvement of its forests, and silvicultural works in favour of young re-growth were carried out over 2,397 acres during the year. The formation of plantations is still on a small and mainly experimental scale.

Forest Industries

At the end of the year there were sixty-nine licensed saw-mills working in the country. The total cut of commercial wood, in terms of round timber, was 370,426 tons of 50 Hoppus feet, as compared with 407,336 tons in 1957. Of this total, approximately 83 per cent was exported, and timber exports, which are summarised in the table on the following page, were valued at \$15,734,178 f.o.b., as compared with \$16,389,845 in 1957.

The United Kingdom, which is by far the most important market, is almost entirely interested in the timber of *ramin* (*gonystylus bancanus*). There was again a rather severe recession in the *ramin* market about the middle of the year, but this steadily improved and prospects for 1959 appear bright. The export of *ramin* continues to be controlled and there is no immediate prospect of the abolition of restrictions.

The Forest Department has little control over most kinds of minor forest produce except where these are collected in permanent forests. The most important are canes, cutch, damar, getah jelutong and other wild rubbers, illipe-nuts and palm sugar. The illipe-nut crop did not justify earliest expectations, as much of the young fruit was destroyed by storms in late 1957. At the middle of 1958, weather conditions were again favourable for flowering, and a very good crop is expected in early 1959.

The total f.o.b. value of minor forest products was \$10,554,239 as compared with \$2,331,313 in 1957.

Destination	Sawn timber Tons of 50 cu. ft.	Logs Tons of 50 Hoppus ft.	Total equivalent in round timber Tons of 50 Hoppus ft.	
			1958	1957
United Kingdom	56,412	169	112,992	130,450
Australia	22,299	10,859	55,457	53,818
Hong Kong	2,023	44,358	48,404	52,290
Italy	2,781	14,520	20,082	5,473
Netherlands	6,416	1,420	14,252	9,685
Germany	5,317	904	11,539	13,417
Japan	—	11,114	11,114	—
Borneo Ports	3,217	—	6,435	15,865
Belgium	2,969	2	5,940	976
Denmark	1,714	—	3,428	—
South Africa	777	—	1,554	923
Norway	359	48	766	—
Iraq	370	—	740	—
Sweden	353	—	706	—
Others	875	353	2,102	308,616
TOTALS	105,882	83,747	295,541	308,616

Research

The principal current research projects are—

- (i) a study of the composition, ecology, silviculture and management of peat-swamp forests;
- (ii) a study of the composition and ecology of "heath" forests;
- (iii) increment studies of important species in regenerated forests;
- (iv) preparation of girth-volume tables for the more important timber trees;
- (v) studies of the mechanical properties and durability of Sarawak timbers; and
- (vi) spot tests of various species for planting in poor (mainly podsol) soils.

During the year, a heavy flowering of the important family *dipterocarpaceae* provided an opportunity for an intensification of botanical studies, and there were large additions to the herbarium, which is now combined with that of the Sarawak Museum. Improved girth-volume tables for *ramin* were prepared,

and also preliminary girth-volume tables for *jongkong* (*dactylocladus stenostachys*). A valuable report was received from the Tropical Products Bureau on the yield of tannin from trees of various sizes of three species of mangrove; and also a report from the Forest Products Research Laboratory, Princes Risborough, on the specific gravity of the wood of the 5 principal species of *dryobalanops* occurring in Sarawak. The assistance of these institutes is gratefully acknowledged.

NATIONAL PARKS

The Bako National Park, on the coast not far from Kuching, continued to be popular with holiday-makers, and 4,040 visitors, compared with 4,500 in 1957, were recorded.

Accommodation for visitors at Telok Asam, the main centre of the Park, was again enlarged, and paths were extended and improved. Scientific studies of the area, mainly botanical, ornithological and entomological, were also continued.

MINERAL RESOURCES

In a year of recession mineral resources provided some bright economic features, the value of Sarawak output increasing by over \$1,250,000. Noteworthy developments during 1958 were the start of bauxite exports, an increase in the number of gold mines working, and greater activity in searching for, and testing, mineral occurrences. The main mineral resources are oil, gold, bauxite, coal, stone, phosphate, antimony, mercury and glass-sand; their distribution is shown on the map facing this page. Small occurrences are known of silver, lead, copper, diamonds, gypsum, ilmenite, zircon, monazite, iron ore, sapphire, and kaolin; salt is obtained by native methods in the interior. Detailed descriptions of Sarawak mineral resources, together with production records, are given in Annual Reports of the Geological Survey Department.

Production

Production during 1958 consisted of oil, bauxite, gold, phosphate, bricks, lime, tiles, gravel and stone; their estimated value was \$6,657,000. Mineral exports consisted of oil, bauxite and gold and were valued at \$349,345,000. About \$8,862,000 was paid as revenue in the form of royalties, export duty, company tax, and mining rents; much of this sum came from the oil industry. Most of the oil exported was from Brunei, was piped to Sarawak, and some of it treated at the Lutong

refinery; exports comprised crude oil, gasoline, kerosine, gas oil, fuel oil, diesel fuel, and diesel fuel bunkers. The oil industry, a Royal Dutch Shell Group organization, operates on a large scale using modern methods, and the bauxite mine is well equipped and mechanized. The other mineral industries are mainly small Chinese concerns; eight gold mines are in operation in the Bau District, and building materials are produced at the three main towns, Kuching, Sibu and Miri.

Mining Areas

Mining leases covered 2,154 acres, of which 1,674 acres were for gold and 480 acres were for bauxite; this is the only land in the 47,000 square mile territory reserved exclusively for mining. Oil rights are held by Sarawak Shell Oilfields Limited over 10,850 square miles of land and the offshore continental shelf area which covers some 55,000 square miles. Eighteen general prospecting licences and 8 mining leases were issued. Most prospecting licences were for gold in the Bau district; 5 were for antimony, 3 for mercury, and 2 for black sand in the Bintulu area. Prospecting increased during 1958 particularly for bauxite, gold and mercury.

Oil

The 1958 output from Miri field totalled 56,902 long tons, valued at \$3,161,000. The yield is decreasing, Sarawak having exported oil for over 40 years from this field, and before that there was a small production for local use. The oil was obtained from 180 pumping wells, the depths of which range from 300 to 6,270 feet; it comes from Middle and Upper Miocene sands.

Sarawak and Brunei oil is exported through Lutong in Sarawak, and 5,079,918 long tons valued at \$347,421,530 were shipped in 1958. Most was crude oil, but there was also the following output (in long tons) from Lutong refinery: gasoline 381,463; kerosene 37; gas oil 63,161; diesel fuel 1,139,933; Lutong residue 524,201; naphtha 197,700; and isobutane concentrate 13,251.

Oil production in Sarawak resulted from geological investigations started in 1909 on behalf of the Royal Dutch Shell Group. Oil was struck at Miri the following year and a company with a capital of £500,000 was formed. The first shipment was made in April, 1913, and production has since been continuous, the total output to 31st December, 1958 being 75,113,948 U.S. barrels

—this includes the production estimated to have been made during the Japanese occupation.

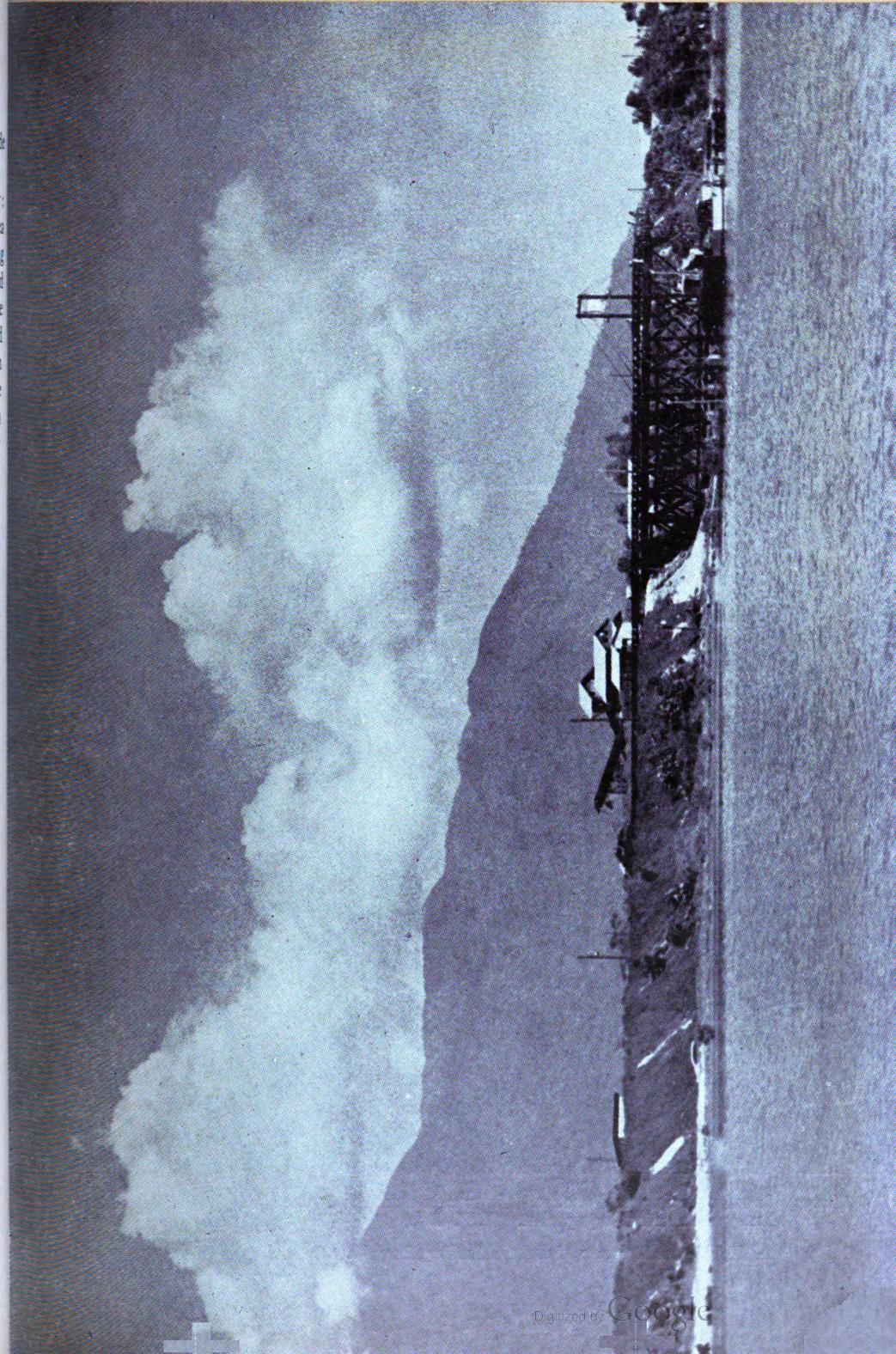
During 1958 the search for new oilfields continued steadily: the main effort being in the coastal region and the off-shore area of the continental shelf. An outstanding feature was the building at Southampton of a 3,000 ton mobile steel drilling barge named *Orient Explorer*, at a cost of nearly £1,000,000. This will be the first barge of its type to operate in the Far East. It is fitted with four retractable legs which are lowered on to the sea bottom at the drilling site, then a hydraulic mechanism causes the platform to 'climb up' its legs above the waves. The barge can operate in water up to 125 feet deep and is to be used for drilling off the coast next year. In preparation for this, soil tests were made at several locations where the platform will be raised for deep drilling.

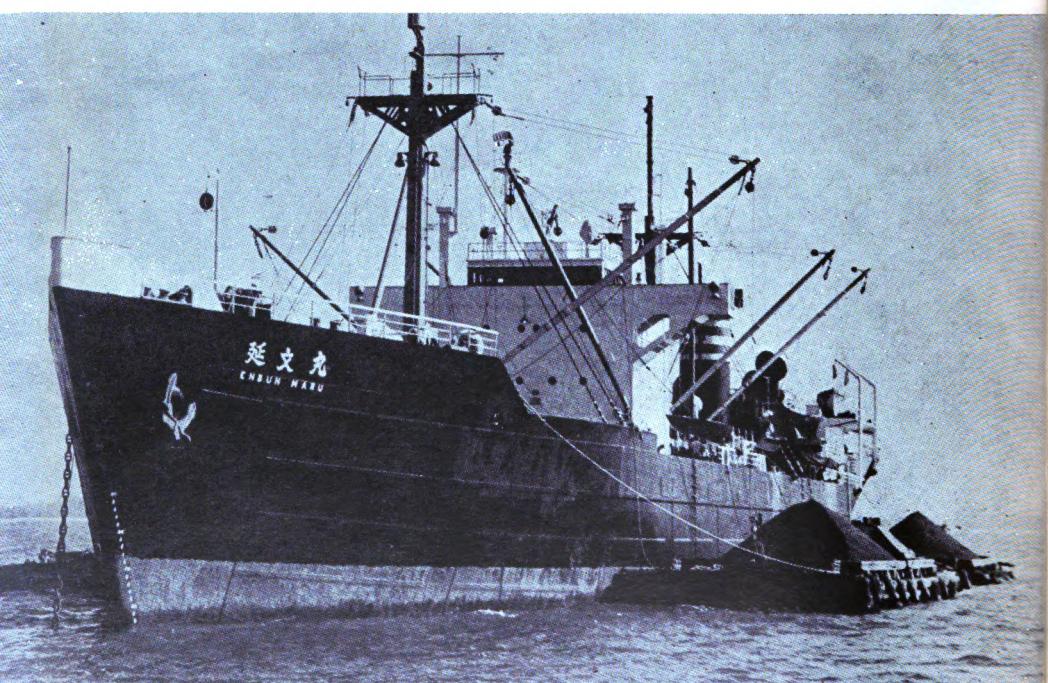
During 1958 over \$9,000,000 was spent in the search for oil in British Borneo, and a considerable proportion of this sum was used in Sarawak. Work consisted of surface geological surveys, with detailed auger sampling, in the Lumut Hills area and in the Ulu Ridan area, and a short seismic refraction survey near Suai covering both land and offshore areas. At headquarters a slotted template layout of the Tatau hinterland was made and a photo-geological study commenced of the Pandan Basin. Geological and geophysical compilation and review work were also continued. In the laboratory, many specimens were examined for their foraminiferal and pollen content.

Aluminium Ore

Sematan Bauxite Limited started mining in early 1958 at Sematan in West Sarawak, and by the end of the year 99,930 long tons of ore had been exported, and a considerable tonnage of ore stockpiled for shipment at the end of the monsoon. The ore exported was worth about \$1,837,000 and \$150,964 was paid in royalty and export duty. The deposit being mined is at Munggu Belian, in undulating country about half a mile from Sematan, and is estimated to contain over 2,600,000 tons of washed bauxite. The bauxite forms a bed about 10 feet thick under a thin cover of soil and is being worked by excavators, cleaned at a washing plant at Sematan, stockpiled, and then loaded on steel lighters and taken to ocean freighters about three miles out at sea. Twelve freighters have shipped ore from Sematan this year starting with the *Kenkon Maru* which sailed

The jetty and some of the bauxite buildings and a loading barge at Sematan, in the First Division. (F. W. Roe)





Above: Bauxite mining at Sematan. The ore is near the surface and is excavated by heavy mechanical equipment. (F.W. Roe)

Below: A 10,000-ton Japanese freighter loading bauxite off Sematan. (F.W. Roe)

on 10th June, 1958. The early arrival of the monsoon in mid-October caused the cancelling of two further shipments and ore has been stockpiled until shipping starts again in April, 1959. Ore shipped has had the following average assay value: Al_2O_3 , 55.85 per cent; SiO_2 , 2.8 per cent; Fe_2O_3 , 8.98 per cent; TiO_2 , 2.11 per cent; loss on ignition 30.24 per cent.

Prospecting for further bauxite started again in 1958, and testing at the margins of the Munggu Belian deposit yielded encouraging results, indicating that bauxite may extend beneath the overburden beyond the previously known margins of the deposit. It is intended to test these possible extensions, and to examine further the possibilities of working Bukit Gebong, about $3\frac{1}{2}$ miles away, which is believed to contain about another 2,000,000 tons of washed bauxite.

Bauxite was discovered during 1949 in West Sarawak during Government geological survey work. Over twenty occurrences are now known; three appear to be worth mining and the working of one of these has started, and methods of mining another are being examined. The three deposits contain about 5,625,000 tons of washed bauxite and are accessible for water transport. The amount of ore available in the remaining occurrences is unknown. Most of them are isolated, inland, small, or contain ore of poor grade, but only a reconnaissance of the areas in which they occur has so far been made, and a more detailed examination will probably reveal extensions to the known bauxite and also lead to the discovery of new deposits.

Gold

Production for 1958 was 864 fine ounces, a slight decrease when compared with the 1957 output. The gold was won by eight small Chinese-owned mines, including four newly reopened mines, and all came from the Bau district of West Sarawak. The ore types and treatment methods used at the gold mines were investigated during the year by a research officer from the Department of Mines, Federation of Malaya. His preliminary report showed that although in the mine the methods used were satisfactory for the present small scale mining, the extraction process was not applicable to all the different types of gold ore in the area and that these could be more satisfactorily treated by other methods. His main findings are given in the 1958 report of the Geological Survey Department.

During the year land in the Bau area was mapped and classified into categories indicating mining possibilities. This survey was made as an aid to land-use planning, and to ensure that the best use was made of the natural resources in the area. Interest has increased in gold mining in the area, and the number of mines working rose from four in 1957 to eight in 1958, and eight new gold mining leases covering 720 acres were issued, with eight general prospecting licences. To help the industry no royalty is now payable on gold produced, and arrangements were completed at the end of the year to allow miners to market their gold locally on the free market. No big increase in gold mining, however, appears likely until the price of gold is raised, or the cost of labour and equipment is greatly reduced.

Gold has probably been mined in West Sarawak for several centuries and is known to be widely distributed in small quantities elsewhere in the country. Recorded production since 1868 is 1,216,088 fine ounces.

Phosphate

During 1958 the production was 153 long tons, valued at \$25,600, on which the royalty and commission amounted to \$4,088. This came from deposits in the Niah Caves where the recorded production since 1946 is 6,045 long tons. Working of the deposits stopped on 1st April 1958. Guano is extracted on a small scale for local use from a number of other caves in Sarawak.

Building Materials and Stone

Stone, gravel, bricks, lime and tiles produced were valued at \$1,546,875. The output is summarized as follows:—

	Production	Value
		\$
Stone	161,000 cubic yards	1,075,000
Gravel	12,593 cubic yards	114,700
Bricks	2,873,000 pieces	339,765
Lime	105 tons	14,160
Tiles	50,000 pieces	3,250

In recent years geological information has been successfully applied to help civil engineering. This has been particularly so in the location of stone supplies, and although sufficient quarries now exist to supply Sarawak with both the quality and quantity of stone needed, economies can always be made by finding stone

in areas where it is to be used, for the price depends mainly on the distance the stone has to be transported. Several hundred miles of the coastal areas east of the Rejang River lack roads, and at present most stone has to be brought in by boat. In 1958 an important discovery of granite in a stone-short area was made at Bukit Piring in the Balingian Valley, where it forms a hill-ridge close to a possible trunk-road route, about midway between Sibu and Bintulu. In this area the cost of shipping in local Sebuyau stone would probably be about \$20 per cubic yard, whereas the stone produced from a quarry at Piring should cost less than \$10. In this area also, several smaller possible quarry sites in tough graywacke sandstone have been found, close to tracks which are about to be made into minor roads. Deposits of gravel and sand, suitable for road construction by the soil stabilization method, have also been discovered close to road routes in this area; other deposits occur close to the main rivers and can be transported comparatively cheaply to the proposed road routes.

About twenty-five miles of the 90-mile road, extending from Serian in the First Division to Simanggang in the Second Division, have been made, and quarrying of stone from some of the fourteen possible quarry sites discovered near the roadtrace is providing ample material for road building. This is speeding up construction and saving large sums which would otherwise have to be spent in transporting stone.

Minerals Investigated

Minerals referred to briefly below have been investigated during 1958, but not mined. In past reports full details have been given.

Antimony In 1958 prospecting for this mineral continued and five general prospecting licences were issued for the testing of deposits in the Bau district; two of the licences also allowed mercury prospecting. Antimony ore is widely distributed in Sarawak being found in the Baram and Rejang Valleys, with the main deposits occurring in the Bau area. It occurs mostly as the sulphide, stibnite, and since its discovery in 1823 there are records of the sale of approximately 83,000 tons.

Mercury Enquiries about mining this mineral were received from Sarawak, Hong Kong, Japan and California. During the year three general prospecting licences were issued over 5,800 acres in

the Bau area, and occurrences were examined by a party of Japanese from the Nomura Mining Company Limited, Japan's leading mercury mining and importing company. Mercury occurs mainly as the sulphide, cinnabar, and the recorded output is 21,598 flasks produced mainly between 1870 and 1900.

Coal One general prospecting licence over coal in the Silantek area of West Sarawak terminated in 1958. In the past about 1,459,000 tons of coal were sold from two collieries operated by the Sarawak Government. The last of these to work closed in 1932. Over thirty occurrences of coal are known in the country, some of them containing millions of tons, but transport difficulties would make mining difficult.

VIII

CO-OPERATIVE DEVELOPMENT

COMPARED with 1956 and 1957, 1958 was a more successful year for new registrations. There were 13 in 1956, 10 in 1957 and 17 in 1958. Of these new societies one was a store, one was a cattle breeding society, 4 were savings and loans societies, 4 were padi savings societies and 7 were padi savings and loan societies. The total initial membership was 533. There were three cancellations during the year — two store societies and one padi savings society. The number of societies on the register at the end of the year was 168.

Of the 1958 registrations six were in the First, six in the Fourth and five in the Third Division. There were none in the Second Division.

Of those in the First Division the most interesting and unusual registrations were of two societies, both savings and loans organisations. The first is based on a community development centre in a rather backward Land Dayak area in the mountainous hinterland of Kuching. It is unusual because members are drawn from several widely scattered villages and without the centre the society would be unmanageable. There is danger in this but even after the community development project ceases to function the centre is likely to remain, principally because a road is being built which will eventually connect the centre with Kuching. From the present savings society expansion to other forms of co-operation is probable.

The other registration has perhaps a wider significance, for membership is entirely composed of women. This registration came about through inter-departmental co-operation between the Education and Co-operative Development Departments, and the first approach was made to the women of the village as a result of rural homecraft courses conducted by the Lady Education Officer and her staff.

In the Third Division the most interesting development was the registration of a cattle breeding society by a group of Malays.

This had been thought about and planned for several years. The chances for and against success are about even, for membership is largely composed of the members of a rural credit society which so far has not been altogether successful. The formation of a school thrift society in one of the big Malay Schools in Sibu suggests a realization, among some, of the need to teach thrift when they are young to a people who tend to be by nature thriftless.

Registrations from the Fourth Division have been on more usual lines; all were either village padi savings or village padi savings and loans societies. Applications for registration from the Fourth Division are likely to increase in 1959, a sign that the movement there is now beginning to "snowball" after several years of hard work when progress often seemed slow and unrewarding.

In the Second Division, once the area of spectacular development, no new societies were registered. This is partly due to a natural slowing down in the demand for new primary societies in areas of existing co-operatives, but also because most of the societies still need supervision, and as communications are difficult and trained staff are few little could be done in other districts of the Division beyond some work of exploration.

Most processing societies (padi mills) have not done well, though the 1958 harvest was on the whole better than usual. Management of societies in the Second Division, where most of this type are, has been bad, and too much milling on credit has been allowed. It may be necessary to close down a number of these societies in 1959, but recovery is possible after some reorganisation late in the year.

Padi savings and padi savings and loan societies continue to show some progress. There have been some withdrawals of cash savings both from these societies, and from financial societies in general. In urban societies this appears to have been due to rising costs and the shortage of cash. In the country, however, withdrawals have taken place rather because in a number of societies the compulsory period of savings has come to an end and members are free to withdraw. Although these withdrawals have taken place most members have decided to keep their societies going and so are continuing to make deposits.

Marketing societies functioned much as before. The smaller of the two societies increased its business partly as a result of

reorganisation. The larger society was upset by internal squabbles some of which had little to do with the affairs of the society; support was withdrawn and the society suffered a small loss. The poultry and egg marketing society found same difficulty in competing with imported eggs. The one fish marketing organisation ended the year with a surplus, but overdue debts have reduced this.

The trade recession and decrease in the value of exports and imports does not seem to have affected the consumer societies unduly. The total turnover has decreased, but a number of societies, particularly the Foochow stores, actually increased their business and offset rising costs by cutting down expenditure wherever possible. Where consumer societies have not fared well the blame can be laid on doubtful co-operative practice rather than on the "slump".

The Co-operative Central Bank continued to expand, and increased its membership from 118 to 124 and its surplus from \$4,130.49 to \$4,926.53. The bank continued its functions as an investor of members' funds, a clearing house for the payment of bills and a forwarding agent. The demand for short term credit remained limited. In August the bank made its first local investment, by buying \$200,000.00 worth of Sarawak Government Debenture Bonds.

Throughout Sarawak there is a growing awareness of the Co-operative movement and both press and radio continue to give valuable help to the Department. This awareness is nowhere more marked than among the more progressive elements among the Malays of Kuching. Much has been said by radio and press of the value of thrift and there is a growing opinion that co-operation can at least help towards solving the economic problems of the Malays. A practical demonstration of what can be done is the comparative success of the Malay Co-operative Savings Society of Kuching, in which 175 members raised some \$10,870 in the sixteen months from its registration up to 31st December, 1958.

Another interesting feature which became more noticeable was the greater interest shown in the movement by women, both in town and country. This is important and will be given every encouragement. Sarawak women have considerable authority even if their views are not always expressed in public

and there is much to be said for the appointment of women co-operative officers, if suitable ones can be found.

The Magazine *Co-operation in Sarawak* continued to be produced as a quarterly in a trilingual, English, Malay and Dayak version and separately in Chinese.

It was not possible to hold a staff conference in 1958, but the Commissioner visited Sibu and Miri and discussed matters of Divisional and general interest in both places. In Kuching a field staff conference of members of the field staff in the First and Second Divisions was held from 22nd to 24th December.

The training of probationary staff continued as in previous years, with a two months course of lectures and several months practical training in the field. Examinations were held in September. Out of 13 sitting for the Lower Standard Examination 7 passed, a rather better record than in 1957. The results of the Middle Standard Examination were most disappointing, only 2 passing out of 7.

A Co-operative Officer went on a one year in-service-training course at the Co-operative College, Loughborough, England, and two Assistant Co-operative Officers went on a six months' training course at the Malayan Co-operative College in Kuala Lumpur. Unfortunately one of these had to return home because of ill-health after only three months.

In March, 1958, Mr. R. S. W. Malcolm went on leave prior to retirement, and Mr. W. G. Morison was appointed Commissioner, Co-operative Development and Registrar of Co-operative Societies from 1st October, 1958.



Above: The Paramount Chief of the Ibans, Temonggong Jugah anak Barieng, speaking at the Graduation Ceremony at the Teacher Training College, Kuching. (G.S.I.S.)

Below: A lady education officer visiting a Land Dayak house in the First Division. (Hedda Morrison, A.R.P.S.)



IX

SOCIAL SERVICES

EDUCATION

THE number of school pupils in 1958 was 90,932, compared with 79,407 in 1957. This increase was larger than that of any previous year. The school population has doubled since 1952.

Building

1958 was a year of great building activity by Government, local authorities and voluntary agencies. Two new secondary schools were under construction by Government. Capital grants paid to local authorities and voluntary agencies were more than double those paid in 1957 and more than seven times those paid in 1956 when the new scheme of grants-in-aid was introduced. Capital grants are paid at the rate of 50 per cent of the approved cost of buildings and equipment. The matching contribution of 50 per cent is met by the managements. Local authorities, which manage a large number of rural primary schools, are now increasingly raising part of their matching contribution by education cesses, but they continue to rely to a large extent on contributions in labour, materials or cash from the villages served by the new schools.

Enrolment

The increased enrolment chiefly affected primary schools where the number of pupils rose from 71,414 in 1957 to 82,216 in 1958. Primary schools are mostly under the management of local authorities, missions or Chinese school boards, but local authorities in addition to managing their own schools have a general responsibility for primary education in their areas. In all types of primary school the full course is designed to last six years but in most rural native schools it is at present possible to provide only a four-year course. The schools directly managed by local authorities, which in 1958 numbered 338, are mainly, schools serving the indigenous peoples; these schools use the

An open-air school at Leppu Leju on the Tinjar River. Fourth Division. (Sarawak Museum)

vernacular in Primary One and Two, with English taught as a subject and begin to use English to some extent as the medium of instruction in Primary Three or Four. Some local authorities began to plan the establishment of schools for the Chinese-speaking part of the population.

Primary Schools

Primary schools under voluntary agencies receive recurrent grants-in-aid through their local authority. At present all essential recurrent expenditure on primary education is met by the combination of grants given by the central government and fees paid by parents. It is likely that in future local authorities will be required to raise funds locally towards the rapidly increasing recurrent expenditure on primary education.

There were 138 aided primary schools under the management of five Christian missions. These schools fall into three main types, the large urban schools, the central schools and the small rural schools. The large urban schools provide mainly for the Chinese population but also for some day pupils and boarders from the indigenous peoples. Most of these mission urban schools use English as the medium of instruction from Primary One onwards, and many of them have secondary departments from which entrants to the Government service are largely drawn. At the smaller towns, missions have established central schools which provide a boarding education for native pupils but also take some pupils from the neighbourhood. Village schools under mission management serve the native peoples.

There were 237 aided primary schools in 1958 under the management of Chinese school boards. The enrolment in these schools was 39,005 of whom all but some 200 were Sarawak Chinese pupils. The boards of management of these schools are elected annually by the local Chinese communities. Since 1956 Chinese schools have received grants-in-aid in the same way as schools under other voluntary agencies or local authorities. In Chinese schools Kuo-yü is the medium of instruction. Although increased attention is being given to the teaching of English, the standard reached is still low. There were five primary schools using Kuo-yü as the medium which were under mission management, and five under Local Authority management.

Secondary Education

Secondary education is provided in the medium of English, mainly at mission schools, and in the medium of Kuo-yü in

Chinese secondary or 'middle' schools. In 1958 there were 3,268 pupils in the English-medium system, of whom 2,898 were in mission-aided secondary schools and the remainder in Government secondary schools. In aided secondary schools using Kuo-yü as the medium there were 5,440 pupils.

In the English-medium secondary schools a public examination is taken at the end of the third year for the Sarawak Junior Certificate. This certificate serves as a qualification for entry to branches of the Government service and to business houses, as well as for admission to some training courses. The examination was held for the fifth time in November 1958. Four hundred and nine candidates from Sarawak were successful, compared with 360 in the previous year. The Cambridge Overseas School Certificate examination is taken in the Fifth Form. There were 211 candidates for this examination in 1958, compared with 191 in the previous year, of whom 117 were successful; the results of the 1958 examinations were not known when this report was being prepared. A few schools have Sixth Forms which in 1958 submitted thirty-nine candidates, compared with thirty-two in the previous year, for the Cambridge Higher School Certificate examination.

Chinese-medium secondary schools provide a "junior middle" course of three years, followed by a "senior middle" course of three years. Common examinations are taken at the end of each stage. In 1958 there were 637 successful candidates for the junior middle certificate and 290 for the senior middle certificate.

The new secondary school at Miri, known as Tanjong Lobang School, which opened in 1957 under Government management, continued to use temporary premises kindly made available by Sarawak Shell Oilfields Limited. At the end of the year the new buildings were ready for occupation.

A new secondary school, under Government management was opened in 1958 at Kanowit, using the grounds and buildings of the former Rural Improvement School.

In 1958, for the first time, admission to secondary schools was governed by common examinations. The most promising candidates who seemed from their examination results to be suitable for an academic secondary education were awarded 'selected' places, and schools were required to give priority to these candidates in filling their vacancies. The remaining

vacancies in the schools could be filled by 'unselected' candidates, for whom a higher fee is charged.

A committee of nine appointed by the Director of Education to survey the curriculum, syllabuses and text-books used in Chinese-medium schools produced its report in 1958. Its recommendations were accepted, and conveyed to all managements of Chinese schools.

Native Enrolment

The number of native children in school rose from 27,520 in 1957 to 34,471 in 1958. This represents a satisfactory increase but it will be many years before primary schooling can be provided for all native children. The standards achieved in most native village schools are still low compared with the standards reached in the urban schools, partly because in most village schools the small enrolment makes it necessary for one teacher to conduct several classes, and partly because the teachers in urban schools have higher academic qualifications; and another important factor is the difference in environment.

Schools Broadcasting

With the main object of assisting native primary education, a scheme of Schools Broadcasting was initiated in 1958. It is hoped that the scheme will especially benefit the remoter schools which can seldom be visited. The emphasis will be on the teaching of English for which there is a widespread demand. The scheme was organised by a Schools Broadcasting Officer lent to Sarawak by the Government of New Zealand under the Colombo Plan. Two trial schemes were conducted in 1958 and the first series of programmes was due to begin in January 1959.

Group Headmasters

Another scheme designed to help native primary schools is the scheme for Group Headmasters mentioned in the 1957 report. Under this scheme qualified expatriate teachers are put in charge of groups of promising and responsive schools. A Canadian teacher, seconded under the Colombo Plan, who had arrived in 1957 and had been given charge of a group of Sea Dayak schools, proved to have a stimulating effect on the schools and on the Dayak communities, and was highly successful in winning the co-operation of teachers and school committees in making improvements to the schools. Another experienced Canadian teacher, also seconded under the Colombo Plan, arrived in 1958

and took charge of a group of up-river schools on the River Baram in the Fourth Division. Teachers responded very favourably to his help. The work of these two teachers who are in close contact with their schools and with the lives of the communities they serve has given the Department of Education much useful knowledge about the problems of schools in the interior. At the end of the year news was received that the Government of Australia, under the Colombo Plan, had agreed to provide an experienced teacher to take charge of a group of primary schools in the neighbourhood of Mukah in the Third Division.

Teacher Training

To meet the rapid expansion of the school system, the number of students admitted to the Batu Lintang Teacher Training Centre was increased in 1958. The Training Centre at Sibu, which was opened in 1957, received its second intake of fifty-two students at the beginning of 1958. Altogether there were 405 teachers in training at Batu Lintang and Sibu in 1958 compared with 260 in 1957.

A Supervisor of Technical Education was appointed early in 1958. Plans were made for the training of staff to introduce into secondary schools courses in carpentry and metalwork. Preparations were also in hand for the opening of a commercial class, the establishment of a small nautical school to train engine-room and deck crews for the Marine Department and commercial coastal shipping, and for assistance to the Public Works Department in in-service training of staff.

Overseas Training

There is no university in Sarawak. Scholarships for further education and training overseas are awarded by the Government of Sarawak, and under schemes promoted by the Governments of the United Kingdom, Australia and New Zealand, and by other organisations. 166 students were studying overseas in November 1958 with the aid of scholarships on courses lasting at least one year.

Literature Bureau

Plans were made in 1958 for the setting up of a Literature Bureau, for which a Director was appointed. The main object of the Bureau will be to assist and encourage the production and distribution throughout the territory of books with a regional background, both for adult readers and school pupils; but in the

early stages the Bureau will also be largely concerned with making more readily available good books from outside the country.

Libraries

In 1958 the Education Department assumed responsibility for the central library in Kuching and for its services to local public libraries throughout Sarawak.

Scouts and Guides

The three territories of Sarawak, Brunei and North Borneo continued to employ a full-time Commissioner for Scouts and appointed in 1958 a full-time Commissioner for Guides. The work of the two commissioners gave a new impetus to the Scout and Guide movements, especially in the training of local leaders.

British Council

The British Council, in addition to much useful work in other fields, continued to give valuable assistance in education, especially through its Teachers' Book Box Service and through collaboration with the Education Department in running vacation courses for teachers.

Finance

Towards the end of the year the problems of financing education became more acute. Expenditure on education in the ordinary recurrent budget of the country had risen from \$1,292,827 in 1955 to approximately \$8,757,000 in 1958, and expenditure in the Development budget from \$283,439 to about \$3,474,000.

PUBLIC HEALTH

General

The Medical and Health Services seem gradually to be crystallizing into a set pattern, but this is not entirely the result of a deliberately laid plan. If it were possible to lay such a plan it would probably prove more profitable for the health of the majority of the people of Sarawak to close the big hospitals and devote practically all available resources to public health in the countryside. But it is not possible to leave a patient in Kuching to die of a compound fracture because all the doctors are controlling malaria up-country or to let a baby die of appendicitis in Sibu because all the child welfare services are busy doing ante-natal work; so there are developing two distinct sides to the work. There is very much merging between these two

sides, and as both are under the same head and have the same staff easily interchangeable, they work so closely together that they are still for most purposes one.

In the main towns there are the big modern hospitals, staffed at a standard considerably below that of the United Kingdom in quantity and quality, but offering up-to-date therapeutic services including specialist attention of which the country can fairly be proud. In the countryside there is a complicated network of fixed and travelling dispensaries, rural midwives and dressers; and mass campaigns are organised, such as the malaria campaign described later. There are very few parts of Sarawak, even in the deep interior, that are not now within reach of some kind of medical help and for the first time it can be said that every part of the country and every inhabitant is at last in one way or another benefiting directly from the Government's medical and health work.

Anti-Malaria Campaign

The most important and most obvious factor contributing to this happy state of affairs (which must not breed complacency) is the anti-malaria project. Following a preliminary country-wide malaria survey by Dr. Julian de Zulueta of the World Health Organization, an experimental anti-malarial pilot project was proposed for the Baram river in 1953. The vector is *anopheles leucosphyrus* which because of its habit of not resting on the wall was thought to be uncontrollable by residual spray. But de Zulueta had made an observation which (like many great discoveries such as Charles Darwin's theories) proved later to be not entirely accurate but which led to enormous advances. He noticed that the nomadic Penans in the headwaters of the Baram lived in heavily malarious areas but never got malaria. They were healthier, fatter and had more children than other peoples living in the same regions. He concluded that this was because they had no houses, never slept near an occupied house and never stayed in the same place for more than a few days; and so conditions favourable to the transmission of the disease could not arise. From this observation it followed that the interruption of transmission by artificial means should be comparatively easy and this was strengthened by the discovery after many thousands of dissections that *leucosphyrus* was an inefficient carrier. The Government was willing to gamble on this and promptly provided funds for the Baram project.

Headquarters were established at Marudi, the Baram river itself was chosen for the experimental work, and a tributary, the Tinjar, for the control. Domestic residual spray with DDT or dieldrin was used and after two years it was conclusively established that residual spray can completely abolish the transmission of malaria in Sarawak.

Large sums of money were immediately provided by Government and in 1956 there started a country-wide malaria control scheme which finally covered the whole country in 1958. Except for the occasional accident or breakdown of arrangements there is now no transmission of malaria in the country and 350,000 people who formerly suffered constantly and chronically from this most debilitating disease have now had their burden lifted. But malaria work is not finished and will not be until eradication from the world or at least from all Borneo is accomplished. Steps towards Borneo-wide eradication were taken in June and December when representatives of Kalimantan (Indonesian Borneo) attended Borneo Malaria Conferences at Sibu and Kuching.

The next immediate task is gradually to convert from control to eradication with surveillance, and the World Health Organization has voted from the Malaria Eradication Special Account (MESA) the sum of US\$150,000 a year for three years—1961, 1962 and 1963—to help towards this end.

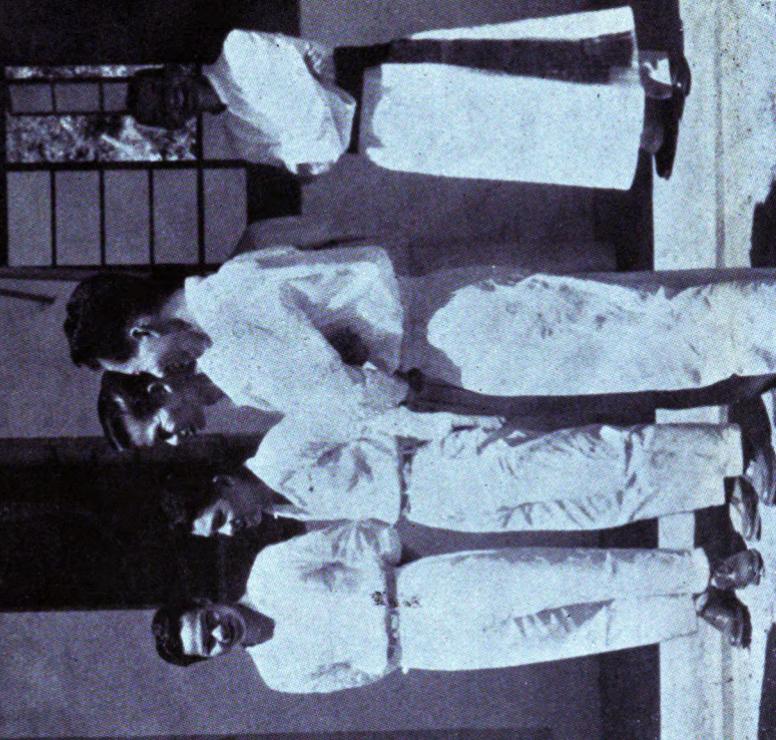
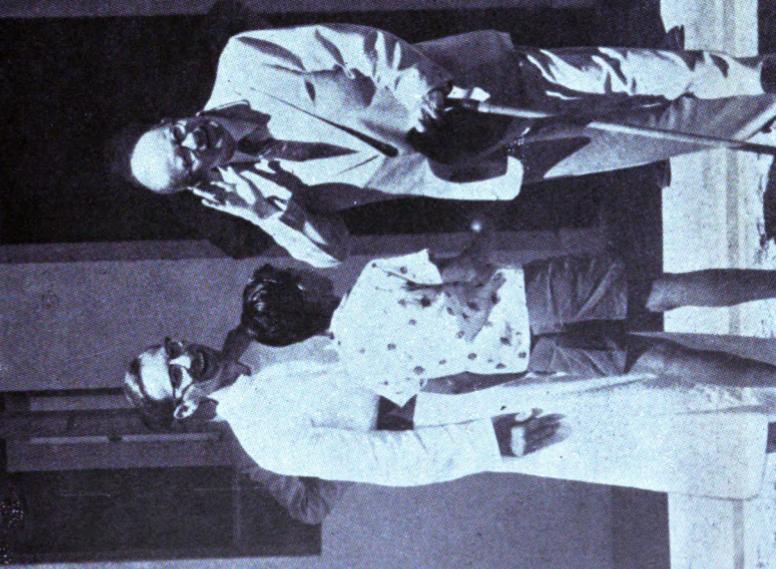
Tuberculosis

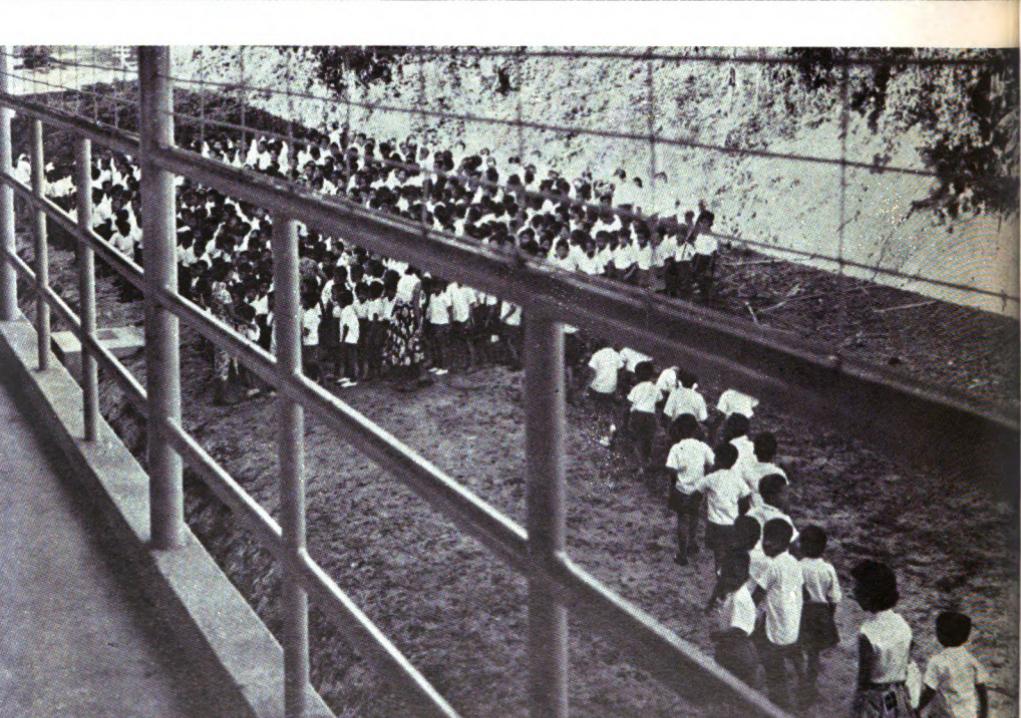
With the control of malaria accomplished and eradication within sight the time has come to turn to other diseases and one of the most important of these is tuberculosis. Tuberculosis has not been entirely neglected. There is a very busy out-patient clinic in Kuching built by the Anti-Tuberculosis Association of Sarawak (ATAS), a voluntary body, and there are tuberculosis wards at Kuching, Sibu and Miri. ATAS is very active and besides conducting welfare work amongst patients and their dependents, the Association opened in June a convalescent home for thirty-six patients near Kuching. Construction started for convalescent homes in the structural form of Dayak longhouses at Marudi and Bintulu in the Fourth Division. BCG vaccination is offered to new-born babies and some other groups and about 900 vaccinations are performed monthly. There is a mass miniature radiograph at the Kuching clinic.

The Governor, Sir Anthony Abell, K.C.M.G., being asked by a pupil at St. Peter and St. Paul's School, Bau, to grant an extra holiday in honour of His Excellency's visit (*G.S.I.S.*)

ST. PETER & PAUL'S SCHOOL

B A U





The new St. Thomas's Primary School, Kuching, August, 1958. (G.S.I.S.)

But all these activities make little impression on the main problem. From the public health viewpoint tuberculosis is in a very acute, almost epidemic, phase — much as it was in Victorian England — and some pessimists would say that nothing will be of much avail against it until the people's living standards in general and nutrition in particular are greatly improved and the epidemic burns itself out. This is not the Government's view and the Australian Government gave help during the year by sending two experts from Sydney to advise us. As a result of their visit a Colombo Plan team from Australia will arrive in 1959 to plan and direct a concerted attack on the disease.

Environmental Sanitation

Another cause for concern is the prevalence of disease resulting from bad environmental sanitation, such as worms of all sorts and gastro-intestinal infections, which are the cause of much avoidable infantile mortality and morbidity. An urgent need is for some type of cheap and easily provided but comparatively pure water supply for small villages and isolated longhouses. Experiments during the year with driven or jetted two-inch tube wells gave extremely disappointing results, although in a few places good clean water in sufficient quantity was readily obtained. The causes of failure are four, two of which can probably be overcome and two not, namely, mechanical failure of equipment or technique; failure of education of the public to use the supply properly; failure to find underground water at all; and the waters being undrinkable, offensive in smell and taste, muddy, salty or bacteriologically impure. Environmental sanitation is one of the big tasks for the future.

One of the first principles of public health, especially in a democratic country, is that the people themselves should want and demand the environmental sanitation that is healthiest for them. The well-tried and proven process to achieve this state in a growing country like Sarawak is, first, to provide therapeutic services, then gradually to introduce the notion that disease need not occur at all, and that a positive condition of health can be maintained by sanitary habits.

Midwifery

Achievement of this aim has been greatly helped by the great success of the midwife training scheme. Midwives and Assistant Health Visitors are now given simple instruction in health and sanitation including domestic science, and are taught

to pass on the gospel when they return to their villages. A typical rural midwife is a young girl of good family but limited education who comes to Kuching or Sibu for a year and learns in a very practical way how to care for women from conception to weaning. After training she receives a certificate as a registered midwife and then returns to her own people to carry on the work she has learned. In many cases she is employed by the local authority and works from a formal clinic but often she will receive no fixed salary but return to her normal village or long-house life with the ability to help and advise her sisters and neighbours; and she is becoming a great force for good. Some idea of her day-to-day work can perhaps be seen in the following extract from the annual report of one of the rural dispensaries, that at Belaga :

"There were 109 cases being delivered during the year. Ninety-two of them were delivered in Government Dispensary while the rest were being home deliveries. Of the above cases ninety-nine cases delivered in normal condition, the rest were abnormal cases—four long tiring labours, one twin birth, four breech of which two were still-born, and one being predicted by severe antepartum haemorrhage. Through difficulties and all available attempts these abnormal cases have luckily been tackled without undue complications. Fortunately there has been no death happened to the mothers though there were three still-births being taken place in the year. The cause of the deaths of the still-born was asphyxia. It was virtually difficult for the midwives to deal with the abnormal cases in an out-of-the-way station like Belaga. Although these abnormalities could usually be perceived on ante natal examination, the natives who of course partly were due to their own financial circumstances, preferred to run the risk as to give birth in the dispensary here rather than proceeding to Sibu or Kapit for parturition. Therefore there was no maternity cases being sent either to Kapit or Sibu during the year."

All maternity and child welfare work is not, of course, of this rural nature and there are well-equipped and staffed clinics in many parts of the country. The new design of clinic at Sekama, mentioned in last year's report, proved a great success and an identical building was opened in December at Tarat, thirty-four miles from Kuching. A practical proof in quadruplicate of the efficiency of the rural midwife service is the Sarawak Quads, now aged 17 months, and flourishing.

Mental Hospital

Another new building completed in 1958 was the new mental hospital, seven miles from Kuching, opened by His Excellency the Governor in June. Money for the main building was provided from Colonial Development and Welfare funds and the total cost including site preparation and quarters was about \$2,500,000.

The design was for 200 beds, but there are already over 300 patients, fortunately without excessive overcrowding. The central offices, kitchen, laundry, treatment rooms, etc. were designed for a hospital three times the size, and in due time it will be comparatively easy to add more wards and staff quarters to enlarge the building. A specialist alienist was appointed in November and took charge of the hospital. He has also organized some psychiatric work at other centres. The mental hospital accepts patients from Brunei as well as from Sarawak.

New Construction

Outside Kuching building went on for the Department. At Sibu the third stage of the building programme was nearly completed, and Sibu will very shortly have a fine modern hospital of 280 beds. At Simanggang the plan to build a new hospital piece-meal on the site of the old one was abandoned; a temporary hospital was built nearby, the old hospital demolished, and at the year's end the entirely new hospital was coming on very well. It will have about 100 beds and will provide all the amenities of a modern general hospital including X-ray, not hitherto available in Simanggang.

A fine new dispensary was built and opened at Limbang. It is virtually a cottage hospital with sixteen beds and is visited regularly by a doctor from Brunei, by arrangement with the Brunei Government. Rural dispensaries were completed at Nonok and Spaoh and considerable structural improvements and renovations were made to the General Hospital in Kuching including the beginning of a new steam laundry.

Mission Hospitals

In addition to the Government hospitals and dispensaries the Christian missions carry out a great deal of medical work, assisted by Government. A new dispensary and nurses home was opened by the Methodist mission on the Mujom river, a tributary of the Rejang; and there are other mission hospitals on the Rejang: Methodist, with two doctors and a surgeon, at Kapit and Roman Catholic, with a doctor, at Kanowit. The Kapit hospital functions temporarily in a school building, but plans have been drawn and a site has been given to the mission by Government for a new hospital building.

Goitre

The Rejang river and its tributaries especially the headwaters are one of the endemic foci of parenchymatous goitre, a very

common disease in Sarawak. After many years of enquiry, investigation and planning a machine for mixing iodate with salt arrived in December, and this will enable arrangements to be made for all imported salt going up river from Sibu to be iodised. No doubt there will be problems of administration and technique, but when these are overcome iodisation of salt will be instituted throughout the whole country.

Staff

Last year reference was made to the difficulties caused by shortage of staff especially doctors. Twelve new doctors including two specialist surgeons have now joined the ranks and the position is much easier. The surgeons are stationed at Sibu and Kuching and for the first time it has been possible to post Government Medical Officers to the Fourth and Fifth Divisions. There are now two at Miri, one functioning as Divisional Medical Officer with responsibility for the two Divisions, and the other travelling.

Ophthalmology and the Blind

The ophthalmologist specialist who serves all three Commonwealth territories in Borneo continued his arduous travelling during the year. He saw 6,689 patients and his report here makes very interesting reading. Of 140 blind patients 60 per cent were Dayaks or of other indigenous races and of these only eight were cataract blind. The major cause of eye trouble and blindness is infectious conditions of the eye. Trachoma is widespread.

Mr. John Wilson, Director of the Royal Commonwealth Society for the Blind, visited Sarawak in February, and following his visit the Social Welfare Council and the British Red Cross Society organised and ran a series of classes of instruction for blind persons who were brought into Kuching from all parts of the country for this purpose. The object of the instruction was to give them self-confidence and the success in most cases was high gratifying. It was very heartening, for example, to see a blind boy who was thought to be not only blind but mentally defective, turn out after one week's encouragement to be a bright, keen and cheerful lad. The visitors were also taught simple handicrafts, such as basket work, to help to make them at least in part self-supporting in their homes.

Visitors

Other important visitors were Professor A. G. Watkins, Paediatrician from Cardiff, Professor F. R. G. Heaf also from

Cardiff and Tuberculosis Adviser to the Secretary of State, and Dr. J. C. R. Buchanan, Deputy Chief Medical Officer to the Colonial Office.

Training

A new sister tutor arrived, and under her guidance the system of training of nurses (male and female) took another natural step forward and we now have a proper preliminary training school in Kuching attended by first year students from Sibu as well as Kuching. In fact there is now first class training for nurses and midwives and the training of mental nurses has been started at the new mental hospital. The formal training of health inspectors is still done overseas, but with the arrival during the year of two new medical officers holding the Diploma in Public Health it is intended to institute public health training for auxiliary staff in Sarawak.

Twenty-seven Sarawak students were studying medical subjects outside the country, as follows:—

<i>Training</i>	<i>Country</i>	<i>Students</i>
General Nursing	United Kingdom	3
Dental Nursing	New Zealand	2
Occupational Therapy	Malaya	1
Medicine	Singapore	5
Medicine	Australia	3
Dentistry	Singapore	1
Dentistry	New Zealand	1
Mental Nursing	New Zealand	1
Dental Mechanic	Malaya	2
Health Inspection	New Zealand	2
Pharmacy	Singapore	2
Health Inspection	Australia	2
Health Inspection	Singapore	2

Leprosy

The good work being done at the Rajah Sir Charles Brooke Memorial (Leper) Settlement by a small band of devoted workers continued, with the addition that in 1958 we were able to accept all North Borneo's patients. The difficulty of persuading villages and longhouses to receive patients back into their communities after discharge from treatment has been entirely overcome in Sarawak and this year for the first time relatives and friends pleaded for the patients to go home. In the Settlement patients are taught all sorts of useful accomplishments and after discharge are very good citizens and heartily welcomed by their own people. This complete change of heart was brought about by the Leaving Ceremonies which are worthy of description. Twice a year there is a grand "Speech Day". Distinguished visitors attend,

press and radio are there and His Excellency the Governor personally shakes each discharged patient by the hand and presents him with a beautiful Leaving Certificate. There is a short concert, and speeches. The whole ceremony is much like a college graduation day and in fact the certificate received by the patients is regarded by them and their friends as a diploma on graduation from a college whose reputation is getting higher and higher. In 1958 there were ninety-six discharges, the highest number in recent years.

Dental Work

Dental work continued on the same lines as in previous years and considerable progress was made towards the resolution of the very difficult problem of unqualified dentists. The Dental Registration Ordinance of 1939 provided that thereafter only persons properly qualified could be registered as dentists, but in the intervening years many existing dentists had ceased to practise and only one properly qualified new dentist in private practice had come to fill their places. An Amendment Ordinance passed in 1956 made provision for the admission to the registers of some unqualified dentists after a simple examination.

This Annual Report tells of great progress in medical and health affairs in Sarawak particularly against malaria, but towards the end of the year there was a reminder that the price of security is eternal vigilance. Smallpox was thought to be a disease of the past, but a survey of a group of Sarawak people living near the border of Indonesian Borneo showed that only a very small proportion of them were protected by vaccination. Kalimantan is declared infected with smallpox, so a potentially very dangerous situation was discovered. No doubt in years to come the same kind of vigilance will be necessary against malaria and other diseases, and no doubt, too, there are many difficulties and surprises in store.

SOCIAL WELFARE

The Social Welfare Council is a voluntary organisation composed of representatives, with various welfare interests, from all over Sarawak. Its purpose, in consultation with government, is to guide welfare policy, and to allocate funds according to various needs throughout the country. All welfare organisations have direct access to the Council. During 1958 its funds were obtained from two sources, a Government grant of \$190,000 and the Turf Club Sweepstake, \$64,626.06.

Voluntary Organisations

Most of the welfare work is carried out by voluntary organisations. In most areas there are either local relief committees, or benevolent societies. These committees are financed by grants from the Social Welfare Council, and by locally raised funds. Apart from a broad central policy, they administer their own affairs, according to the particular needs of the district. Each committee has the right to send a delegate member, with full voting powers, to any of the Council's monthly meetings.

Much voluntary welfare work is also done by the British Red Cross Society, the Anti-Tuberculosis Association, the Missions, Prisoners' Aid Society, the Sarawak Youth Council, and the Scouts and Guides. All these organisations receive grants from the Social Welfare Council.

At present no facilities exist in Sarawak for training deaf and dumb children, but at the expense of the Council one little girl is attending the Singapore Sign School for the Deaf.

A new Boys' Hostel was opened. The cost of \$85,000 was met by Government and by capital grants from the Social Welfare Council. Run by the Salvation Army, the home receives cases from all over Sarawak and fulfils a long felt need in connection with child care and probation work.

Grants from the Social Welfare Council were continued.

The year marked further progress in the organisation of youth activities in Sarawak. Earlier in the year the First Pan-Sarawak Youth Conference was organised, to bring all youth workers in the country together to evaluate past experience, discuss problems and plan future programmes. Over thirty workers from all parts of the country attended the Conference which was opened by His Excellency the Governor and as a result, Divisional Branches or Divisional Youth Councils were formed to cater directly and on the spot to the needs of youth. An all-round improvement in activities followed.

Several new youth organisations were formed in villages, to help rural youth in their progress. But with the increase in activities there was a great need for trained youth leaders and the first club leadership course was started in December, 1958.

Sarawak was again represented at an International Youth Conference, the Third Assembly of World Youth in New Delhi. A prominent youth leader was selected for a study tour granted by the United States Information Services to study community welfare programmes in the United States of America.

Social Welfare Council funds were used for various youth projects as their spheres, and so their expenditure, increased. Vocational classes continued to be well patronised by the young. These groups are steadily expanding and are held back only by the lack of trained instructors.

COMMUNITY DEVELOPMENT

Community Development work consists mainly of a number of schemes designated to raise living standards generally by teaching communities as a whole to improve their standards of agriculture (both with a view to consumption and sale), health, child care, co-operative trading, domestic arts and other basic techniques of making better use of the resources available to them. It is closely connected with the work of education and agricultural extension. Each scheme of this kind is under full-time resident expatriate leadership but is designed to continue under the initiative and control of the community concerned. A new departure in 1959 was the training of leaders who are expected to extend the techniques of community development into their own home areas. This is known as the Iban Team Project.

Another new departure was Sarawak's participation in "The Year Between" project. This scheme is designed to provide selected boys from United Kingdom schools who have a year to wait before entering university with an occupation which will be valuable both to themselves and to the colonial territory to which they are sent. Of the ten boys who came to Sarawak six have been posted to community development projects and all have been most useful.

Of the current schemes, Budu in the Second Division, which has been in existence since 1953, is now virtually independent of resident supervision. Entabai in the Third Division is progressing in the same direction and is the main centre for training Iban teams. Padawan in the interior of the First Division has made excellent progress in transforming the way of life of a particularly backward community. The scheme at Long Lama in the Fourth Division has taken rather a different course. It is a school drawing its pupils from the remote areas of the Baram River and concentrating on the teaching of craftsmanship in wood and metal and the growing of useful crops for home consumption.

An entirely different scheme is the rural Home Craft Instructors' Project which completed its final year. Work will continue under the aegis of Agricultural Extension. It is designed to instruct women in their own homes in the most important aspects of home craft and domestic agriculture.

X

LEGISLATION

Laws of Sarawak

THE Ordinances and subsidiary legislation in force prior to 2nd July, 1947, are in the Revised Edition of the Laws of Sarawak, in six volumes.

All legislation enacted between July, 1947, and December, 1952, is in the Annual Supplements prepared under the Revised Edition of the Laws (Annual Supplements) Ordinance, 1947, with the Imperial Statutes, Orders in Council, Royal Proclamations and Instructions applicable to Sarawak.

The compilation of the Annual Supplements was suspended when the Written Law (Simplified Publication) Ordinance, 1953 came into force in 1953, and the *Sarawak Government Gazette* was divided into parts as follows—

Part I Ordinances.

Part II Subsidiary legislation other than subsidiary legislation published in Part IV; Acts of Parliament, Orders in Council and enactments made thereunder applicable to Sarawak or published for public information; Treaties or Conventions affecting Sarawak or published for public information; Letters Patent; Royal Instructions; Royal Warrants and Proclamations; and such Instructions of the Governor as the Chief Secretary may direct shall be published in this Part.

Part III Bills to be introduced into Council Negri.

Part IV All subsidiary legislation under the Municipal Ordinance, the Kuching Municipal Ordinance, 1952, the Local Authority Ordinance, 1948 and the Local Government Election Ordinance, 1956.

Part V All other matters required to be published in the *Gazette* or published therein for public information.

These Parts are separately bound as Annual Volumes at the end of each year, introduced when the Annual Supplements were abolished.

Legislation in 1958

Twenty five Ordinances were enacted. Fourteen were amending Ordinances and of the others six were new, two consolidating, one appropriation and one validating.

The following merit comment—

NEW ORDINANCES

The Essential Services Arbitration Ordinance, 1958

To provide for the settlement by an Essential Services Arbitration Tribunal constituted by the Governor of disputes in certain essential services. The Governor-in-Council is empowered to add any other services to this list if he considers such a course desirable.

The Pensions (Special Provisions) Ordinance, 1958

To make special provisions relating to the pension rights of certain Government officers.

The Oil Mining Ordinance, 1958

To regulate the law relating to oil mining in Sarawak and on its continental shelf.

The Prisoners Reception Ordinance, 1958

To provide for the reception and detention in Sarawak of prisoners from the State of Brunei who are undergoing sentences of imprisonment for life or for terms of not less than one year or sentences of detention during the Sultan of Brunei's pleasure.

The Brooke Dockyard and Engineering Corporation Ordinance, 1958

To provide for the establishment of the Brooke Dockyard and Engineering Works Corporation

The Local Newspapers Ordinance, 1958

To provide for the regulation by registration of newspapers printed in Sarawak, including matters relating to the collection and publication of news and the distribution of newspapers.

CONSOLIDATING AND REPEAL ORDINANCES

The Limitation Ordinance, 1958

repeals and replaces the Debts and Limitation Ordinance and the Limitation (Special Provisions) Ordinance, 1949, makes more comprehensive provisions in relation to the limitation of

suits and brings the law on this subject into line with similar legislation in North Borneo.

The Rubber Ordinance, 1958

repeals the earlier Rubber Regulation Ordinances and makes more up-to-date provisions for control of the rubber industry.

AMENDING ORDINANCES

The Trade Unions and Trade Disputes (Amendment) Ordinance, 1958

amends the Principal Ordinance by setting out in greater detail the circumstances in which the Registrar may cancel the registration of a trade union, subject to appeal to the Supreme Court; by allowing trade unions to have one officer who is not a worker in the trade concerned and prohibiting a person from being an officer of more than one trade union without the consent of the Governor; and by prohibiting pupils in schools, other than pupils in night schools who are over twenty one years of age, from taking part in, or inciting others to take part in, strikes or lock-outs.

The Sedition (Amendment) Ordinance, 1958

amends the Principal Ordinance principally by empowering the Governor-in-Council, if he is satisfied that such a course is necessary to prevent the arising of a situation prejudicial to the public safety or the maintenance of public order, to prohibit, except under a permit issued by a competent authority, the importation of all publications emanating from a specified country or source, or written in a specified language.

The Arms and Explosives (Amendment) Ordinance, 1958

The more important amendments made by this Ordinance to the Principal Ordinance deal with precautions against the borrowing or use of licensed guns by unlicensed persons; limitations on forfeiture after offences; the discharge of firearms without reasonable precautions; and the making of rules to provide for the establishment of Government magazines, and the control of private magazines, and the storage, movement and use of arms and explosives.

The Labour (Amendment) Ordinance, 1958

amends the definitions of employer, wages and worker in the Principal Ordinance and deals with the liability for hospital charges.

The Penal Code (Amendment) Ordinance, 1958

The most material amendments deal with, *inter alia*, the use of forceps by a person other than a registered medical practitioner; cruelty to children, and offences relating to women, young persons and children.

The Registration of Births and Deaths (Amendment) Ordinance, 1958

deals with microfilming and custody of registers; the alteration of children's names, and the correction of incorrect entries.

The Water Supply (Amendment) Ordinance, 1958

empowers the Governor-in-Council to establish Water Boards to exercise the functions of a Water Authority.

Revised Edition of the Laws

Work on the revision of the laws was continued during 1958 and the revision of the Ordinances was completed except for proof-reading, printing and binding. Revisions of the subsidiary legislation is under way. Arrangements were made for an Index to both the Ordinances and the Subsidiary Legislation to be compiled by an expert in England.

XI

LAW AND ORDER

JUSTICE

The Supreme Court

A PART from Imperial legislation, whether by Order in Council or otherwise, the law of Sarawak is found mainly in local ordinances and native customary law. Chinese customary law, chiefly in matrimonial matters and inheritance, is recognised only as far as such recognition is expressly or by implication to be found in a local ordinance.

Where Sarawak law is silent, the Courts apply the common law of England and the doctrines of equity, together with English statutes to the extent permitted by the Application of Laws Ordinance, 1949, and subject to the qualifications of local circumstances and native custom.

The Supreme Court of Judicature consists of a High Court and a Court of Appeal for Sarawak and North Borneo and Brunei. The Court of Appeal has its headquarters in Kuching, but sits on occasion in other places.

One hundred and seventy-four criminal cases and four hundred and fifty-three civil actions were heard in the High Court. In the Court of Appeal nine criminal appeals and twelve civil appeals were heard.

The Lower Courts

The Courts presided over by magistrates are the District Court (Civil and Criminal); the Court of Small Causes (Civil); the Police Court (Criminal); and the Petty Court (Civil and Criminal). Three legally qualified magistrates sit at Kuching and Sibu. The other magistrates are administrative officers who do magisterial work as part of their duties. A law student under a Sarawak Government scholarship passed his Bar Final Examination and, after a year's reading in chambers in England, returning to Kuching in March, 1958, and is attached to the Legal Department there.

Under the provisions of the Courts Ordinance, 1951, in the exercise of their civil jurisdiction Courts of Magistrates have

jurisdiction in every civil matter where the value in dispute does not exceed (in the case of the Magistrates of the First Class) \$1,000 or (where the Chief Justice by notification in the *Government Gazette* confers upon any magistrate special jurisdiction) then, in a Court presided over by such magistrate, \$3,000. Magistrates of the Second Class have jurisdiction where the value in dispute does not exceed \$500; and Magistrates of Third Class, \$100. Courts of Magistrates have no jurisdiction in proceedings in connection with applications for partition of immovable property; the specific performance or rescission of contracts; the cancellation or rectification of instruments; the enforcement of trusts; and applications for declaratory decrees. The powers of the Courts of Magistrates in criminal jurisdiction are as provided in the Criminal Procedure Code.

Apart from the courts mentioned above there are the Native Courts constituted under the Native Courts Ordinance, 1955. These are the District Native Court, the Native Officer's or Chief's Court and the Headman's Court. An appeal lies from the Headman's Court to the Native Officer's or Chief's Court, and from the latter to the District Native Court and then to the Resident's Native Court. A further appeal may be made to the Native Court of Appeal by way of a case stated on a point of law or native custom. As a general rule, the Native Courts are competent to try only cases in which all the parties are natives, including cases arising from the breach of native law and custom, civil cases where the value of the subject-matter does not exceed \$50, and claims to untitled land.

The figures of cases tried in the lower courts in 1958 and 1957 shows little change. The incidence of crime, particularly serious crime, fortunately remains low.

Probate and Administration

The Registrar administered eighteen deceased persons' estate compared with fifteen in 1957. The assets and property of the estates, after payment of the deceaseds' just debts and liabilities, are distributed to the heirs and beneficiaries in accordance with law and custom.

Three grants of probate and fifty-eight letters of administration were issued during the year. One grant of probate issued elsewhere in the Commonwealth was sealed, against two in 1957.

Lunatic persons' estates

As Official Assignee, the Registrar administered one further lunatic person's estate during the year making six now under his administration.

Bankruptcy

Four creditors' and one debtor's bankruptcy petitions were lodged and dealt with.

Deeds and Bills of Sale

One thousand two hundred and fifty-two documents were registered under the Registration of Deeds Ordinance, most of them hire purchase agreements, powers of attorney and other agreements.

One hundred and twenty-one bills of sale were registered under the provisions of the Bills of Sale Ordinance.

Business Names and Limited Companies

Eight hundred and ninety-six new partnership business were registered during the year compared with twenty-two in 1956. The majority of them were dealers in general merchandise and groceries. The large increase was due to the extension of the provisions of the Business Names Ordinance to all firms in the Kuching District carrying on retail or wholesale business on land held under title, whether or not the firms are engaged in export or import trade (see p. 25). It excludes stall holders in markets, and village shops not on land held under title.

Sixteen locally incorporated and thirteen foreign limited liability companies were registered under the Companies Ordinance, 1956, compared with sixteen and eleven respectively in 1957. The majority of these are traders in general merchandise and insurance companies.

Patents and Trade Marks

Five grants of "Exclusive Privileges" were issued. All of these are United Kingdom patents. One hundred and fifty trade marks were registered. There were no renewals of registration.

Trusts

In the absence of a Public Trustee the Registrar administers fourteen trust estates entrusted to him by orders of the courts. The Registrar also administers a trust estate created by the will of a deceased person. In 1958 seventeen such estates were being administered.

Court Fees, Fines, Forfeitures and Deposits

The volume of transactions remains heavy. The revenue collected during the year was \$202,952 compared with \$51,248 in 1957.

Moneylenders

There were sixteen moneylenders on the register. There were eighteen in 1957. One moneylender's licence was cancelled.

Probation (Kuching)

During the year fifty-three cases were referred by the Courts to the Probation Section and of these twenty-two were placed on probation of from one to two years and thirty-one otherwise dealt with.

The steadily increasing use of the probation service by the Courts in dealing with suitable cases of adult offences is encouraging. Theft remained the predominant offence.

Of the non-probation cases, four were sentenced to imprisonment of varying periods; five youthful offenders, with unsavoury past records, were committed to the Sarawak Boys' Home for two to three years.

The total of fifty-three probation cases is the highest to be recorded since the probation service came into being in 1949. The cases came chiefly from the Kuching District, but a few were from rural districts in the First Division. This increase gives no cause for alarm. It follows from the concentration of population in and around Kuching in new housing projects, but it does show a growth of criminal tendencies, particularly in the young.

Nineteen cases brought forward for supervision from 1957 completed their probation periods. None of these cases got into further trouble.

Parole, Discharge and Remand

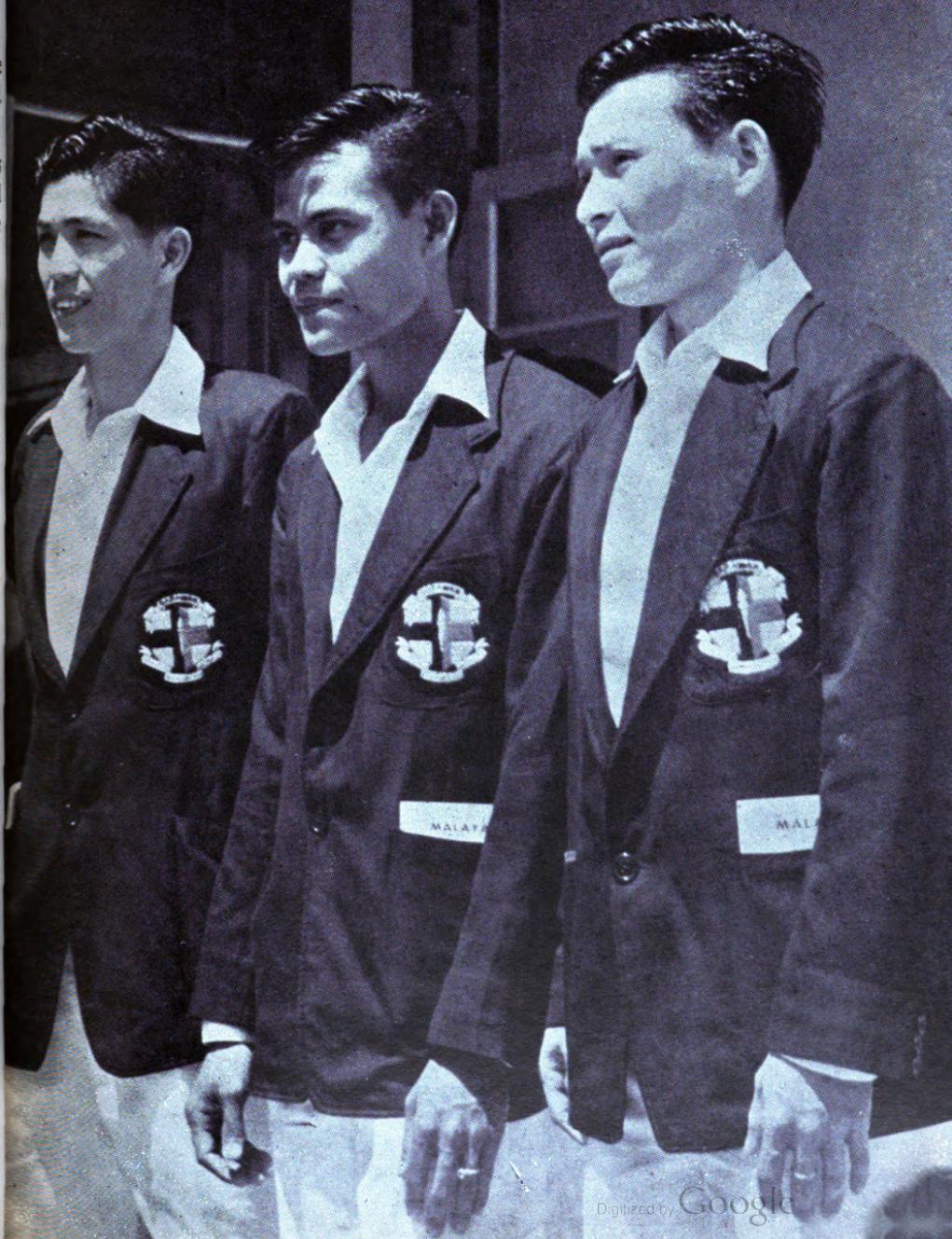
Sixteen boys were committed to the Sarawak Boys' Home. Five were from North Borneo and two from Brunei, and eight were discharged.

The Probation Officers in Kuching and Sibu helped with the aftercare and supervision of boys discharged from the Boys' Home.

Miscellaneous Cases

The Probation Section gave advice to parents or guardians on the treatment of pre-delinquents (refractory and school truants).

Tham Siew Kai, Joseph Lee Gut Hin and Wahab Salleh who represented Sarawak at the Commonwealth Games in Cardiff, July, 1958. (G.S.I.S.)





The follow-up of past cases, both probation and parole, was continued and employment was found for boys.

Staff

The Probation Officer returned in October, after a course in Social Welfare in the University College of Swansea.

In-service training

The Judicial Department introduced a system of training whereby Registrars and Assistant Registrars stationed in North Borneo and Brunei work for some months in the Supreme Court in Kuching. The Assistant Registrar at Brunei Town came in August for three months.

Establishment

Mr. Justice A. S. Bodley retired. Mr. Justice G. G. Briggs, Attorney-General in the Eastern Region of Nigeria, was appointed to fill the vacancy and arrived in Kuching in September.

CONSTABULARY

General

The reorganisation and development of the Force continued in an atmosphere of calm. Expanding towns and the attendant difficulties of providing adequate beat coverage and traffic control began to be felt.

The standard of recruits improves year by year and in 1958 a promising number of secondary schoolboys joined the ranks. This was the first year in which no illiterate recruits were taken into the Regular Police. The Field Force on the other hand recruits mainly men from the indigenous races in the upper reaches of Sarawak. These men are nearly all illiterate and are excellent material for the type of work they are required to do.

The number of Chinese recruits enlisted was higher than ever before. It is significant that after the encouraging press comments on the challenge (in last year's Report) to the Chinese community to make an efficient police service its concern, Chinese applications to join the Force very nearly doubled, and included for the first time men with a wholly Chinese Middle School education. At the close of the year about a quarter of the recruits in training were Chinese.

Public confidence in the Force is improving, but there are three things which militate against a really good understanding between public and police, namely a low educational standard
Doctors at work in the operating theatre of the General Hospital,
Kuching. (G.S.I.S.)

in the rank and file of the Force; the difficulty of infusing into the rank and file a happy medium between toughness in its military function and tolerance and understanding in its police function; and the unbalanced racial composition of the Force with a dearth of Chinese in the rank and file. Emphasis is placed, in training, on the primary role of the Police as a guardian of the people with a duty to help and to guide. As educational standards in the Force improve, so will there be a better understanding of the importance of good relations with the public.

Official encouragement to remove undesirable political elements from schools has helped to contain and to isolate communism in the schools; but there is no room for complacency. The seeds of undesirable political propaganda were still being sown in some Chinese schools. Former students who absorbed this propaganda are now engaged in subverting workers through their unions. This is a threat difficult to counter unless unionists themselves refuse to countenance such activities. There is reason to hope that good sense will prevail and subversion of this sort will not prosper.

Ceremonial

Twelve guards of honour were mounted. A police parade consisting of Regular Police, Field Force and Band was held at Betong on the occasion of the Fort Lily centenary celebrations in July. A tattoo was held at Constabulary Headquarters in Kuching on 24th and 25th May in which units of the Police Training School, Field Force and the Auxiliary Constabulary performed.

Establishment and Strength

The strength of the Force at the end of the year was thirty-six gazetted officers, seventy-five Inspectors and 1,341 Rank and File. Deficiencies on the authorised establishment were, therefore, one gazetted officer, six inspectors and fourteen rank and file. One gazetted officer was seconded to the Administration at the end of the year.

Mr. G. S. Wilson left Sarawak on transfer to Tanganyika on 15th May and Mr. P. E. Turnbull assumed command of the Force.

Recruitment

One hundred and ninety-six recruits enlisted into the regular police in 1958. Thirty had a secondary school education. There

has been no direct recruitment to the Inspectorate since 1st August, 1957.

Training and Education

One chief inspector attended a course of training at the Police College, Ryton-on-Dunsmore, in England and was promoted to assistant superintendent on his return to Sarawak. Two other inspectors left for courses of training towards the end of the year; one on a Colombo Plan scholarship for six months on attachment to the Royal Canadian Mounted Police and the other on a Sino-British Fellowship Trust scholarship on attachment to various Police Forces in the United Kingdom and to Hendon Police Training School. Two probationary inspectors who started a course of training in Malaya in 1957 were posted to divisional duties in 1958, and three probationary inspectors completed their training in Singapore.

The Commissioner's Cadet Scheme, started in 1957 to provide advance education for the Rank and File continued and in November seventeen cadets took the Sarawak Local Junior examination and two passed. Although the percentage of failures is high, this is the first time that members of the Force have been able to take the examination and the results are, therefore, not unsatisfactory, particularly when one considers that the Police Training School had the services of only two part-time teachers. The Rank and File seek eagerly after education.

The period of training of recruits has been reduced from forty-five to thirty-seven weeks. The higher educational standards of recruits made it possible to reduce the time spent on educational training. Eleven squads comprising 276 recruits were passed out to full police duties during the year.

Health

The health of the Force remained good. Twelve men were found during the year to be suffering from tuberculosis and were given sick leave and treatment. One hundred and seventeen men were admitted to hospital.

Welfare

Welfare Committees function in all commands. They did useful work and suggestions made by them helped to improve welfare facilities.

Rugger was introduced into the Police Training School and proved very popular with recruits and members of the Field

Force. European rugby football enthusiasts helped with the training. At the end of the year the police in Sibu, not to be outdone, started in earnest to learn the game. Boxing continues to be popular in the Police Training School.

The Sarawak Constabulary Co-operative Thrift and Loan Society Limited continued to function well. Total receipts to the Police Fund were \$15,605.13 and the credit balance in the Fund at the close of the year was \$23,953.79.

Band

The Band had a very successful year and was at full strength throughout. The establishment is forty men in the military band and sixteen in the bugles. It performed at eighty-five public engagements, including thirty-seven of the very popular Sunday programmes in the Museum Gardens in Kuching, and took part in 125 parades. A Dance Band section was formed and made a successful start at its first public appearance on New Year's Eve.

The Band visited Betong, Lawas, Limbang, Miri, Marudi, Bintulu, Sebau, Seria, Kuala Belait, and Brunei — for the opening of the new Mosque and the Sultan's Birthday.

Buildings

The Force was at fuller strength during 1958 than for many years. This emphasised the accommodation shortage, felt particularly in Kuching where some married men had to find their own quarters and bachelors barracks were overcrowded.

The following buildings started in 1957 were completed in 1958— Limbang Police Station; Binatang Police Station; Sibu Canteen; and Five Inspectors' Quarters.

Field Force

The Field Force continued to operate efficiently and carried out a number of long distance patrols in the more remote areas of the country. Five platoons, including one seconded to Brunei and one used as a training reserve, were maintained. Two training camps were held in Kuching for members of the Sarawak Rangers who saw active service in Malaya and members of the Field Force serving on the Reserve. These camps are extremely popular and, although costly, serve a very useful purpose.

A combined Field Force and Military exercise was held from 19th September to 9th October in the First and Second Divisions of Sarawak. A Company of the 1st Battalion, the Cheshire

Regiment was brought in by air and sea and encamped at the Jubilee Hall in Kuching. Training in modern weapons was demonstrated by the Army who were, in their turn, introduced to jungle patrolling in terrain very different from that of Malaya. The exercise achieved all that was expected of it in terms of training and showing the flag.

Marine Branch

The Branch has two launches — *Margherita* and *La Fee* — and forty-eight small boats driven by outboard engines or "Coventry-Victor" diesel inboard engines. The heavy wooden hulls which were made in 1954 to take the diesel engine have not been a success. They were not designed for the upper reaches of most of the Sarawak rivers and in some stations which have these boats lighter craft have also to be provided for up-river work. These heavy-duty boats are useful because they can take eight men with equipment on routine patrols on the main rivers, but they are uncomfortable and noisy.

Radio Branch

Trouble was experienced with the mobile pack sets. The link between base and patrols is most important and failure to obtain good service caused frustration.

The Force has six HF. transmitter/receiver stations at Constabulary Headquarters, Divisional Headquarters at Simanggang, Sibu and Miri and also on the two police launches. There are also twenty-three VHF transmitter/receiver units which serve eleven motor vehicles, including one motor cycle.

A radio operators' training course was held at Constabulary Headquarters; four of the eight trainees passed the courses and were absorbed into the Branch.

Transport

The Force has twenty-six Land Rovers, vans and lorries and twenty-seven motor cycles. Standardization in Bedfords continues.

Stores and Armoury

The method of accounting in and issuing from Stores and Armoury was reorganised and a number of recommendations made by the Organisation and Methods Adviser were adopted. At the end of the year the Branch was settling down to the new routine.

Auxiliary Constabulary

The efficiency of the Auxiliary Constabulary in Kuching was raised considerably and all ranks now receive a wider syllabus of training. They have, on a number of occasions, particularly at race meetings, given valuable assistance to the Regular Police. Small units are maintained at Sibu and Miri. The Oilfields Security Force in Miri was reorganised and a new system of training drawn up. The Field Force Reserve is a unit of the Auxiliary Constabulary.

Review of Criminal Trends

Crime remains low. The number of reports of crime covered by the Penal Code increased from 3,186 in 1957 to 3,362 in 1958. This increase was mainly accounted for by an increase in theft. There are signs in the bigger centres (referred to also in chapter XI on page 95) of the growth of a criminal element amongst youngsters lured by the glamour of the cinema and "rock and roll" to lead lives of idleness. It is in most cases the old story of poor parental control.

There was much talk of gang activities in Kuching. The menace was exaggerated and, although there were several gangs of youths who are a potential nuisance, there was little evidence of organised extortion and other criminal activity amongst members. In Sibu the Police were able to bring three extortionists to justice through the co-operation of the victims. This may well be interpreted to indicate increased confidence in the Police.

Traffic

The roads in the centre of the town of Kuching became more congested and the provision of parking space remained unsolved. Road accidents in Kuching are few, considering the hazards. There were only seven fatal road accidents in Sarawak during the year. This is a decrease of five over 1957 and is the same figure as for 1955 and 1956. The total of road accidents, including minor accidents where little damage was done and no injury caused, was 798 or eight more than in 1957. Of these, 568 occurred in Kuching and the surroundings.

Registration of Aliens

The total number of aliens registered under the provisions of the Aliens Registration Ordinance, 1955, and remaining on the register at the end of 1958 was 1,847. 753 aliens were registered during the year and 380 died or left the country.

New registrations by nationalities were as follows:—

American	6
Burmese	2
Chinese	394
Danish	1
Dutch	15
Filipino	1
German	2
Indonesian	326
Japanese	6
 Total	 753

Registration of Societies

344 Societies had been registered under the provisions of the Societies Ordinance, 1957, at the end of the year. Four more Societies applied for registration and three were refused registration on the ground that they were likely to be used for purposes prejudicial to peace and good order.

Women Police

There is a place in Sarawak for a women's section of the Constabulary and the Government approved the same terms of service for women as for men. Comment indicated that the introduction of women police will be a popular move. A large number of girls applied for enlistment. Enquiries were made for overseas assistance in training candidates, and the scheme will not begin until adequate training facilities are available.

PRISONS

Staff

The prison staff on 31st December, 1958, was one superintendent, four gaolers, fifty-six warders of all grades and three female wardresses; this was six below strength.

Prison Population

Three hundred and ninety-five male and ten female prisoners were committed.

Recidivism

There were twenty-three known recidivists among the 153 prisoners still serving sentences at the end of 1958. The total for the year was twenty-seven.

Prison for Women

The daily average of female prisoners was two. They were mainly employed in basket-making and gardening.

Open Prison — Pending Farm

Pending Farm is about four miles from the Central Prison. A monthly average of ten selected first offenders were housed there and employed in gardening and planting and employed in gardening and planting vegetables. The farm produced a daily average of fifty-three katis of vegetables.

Spiritual Welfare and Education

Prisoners who are members of the Anglican and Roman Catholic Churches attended Sunday Services in the Prison Chapel and religious instruction was given by their respective ministers. Muslim prisoners attend the Mosque on Fridays under the supervision of warders, and religious instruction was given regularly by the Imam sent by the Majlis Islam. Selected prisoners are taught to read and write Romanised-Malay at evening classes which are held three times a week.

Library and Organised Games

The Library, where reading matter in English, Chinese, Malay and Iban is provided, was very popular and so were badminton, table tennis, chess and draughts. Prisoners were permitted to make their own guitars, violins and ukeleles during their spare time on Saturdays in the prison workshop. Radio listening was permitted between 6 and 9 o'clock nightly; Radio Sarawak was the favourite station. In Kuching Prison cinema shows were given by the Information Service fortnightly and was always well attended.

Health

Health was good. Four prisoners were admitted to hospital for treatment which could not be given in the prison hospital, where all minor cases were treated.

Labour

The following were the trade parties: basket-making, re-seating of chairs, blatt making, carpentering (furniture, house and boat-building), laundry, tailoring and vegetable planting. Other parties were employed in work on Government compounds.

Visits

The visiting Justices paid regular visits to the prisons and reported favourably on the compound and prison buildings, and

on the treatment of prisoners. Mr. F. James, M.B.E., the Chairman of the Prisoners' Aid Society, visited Kuching Prison every month and interviewed prisoners before their release. Where necessary, money, clothing and food were given to them and their dependants.

Escapes

One prisoner escaped while working with a firewood party about five miles from Kuching. He was recaptured four days later.

Executions

There were five executions.

Remission

Remission of one-fourth of a sentence is granted to male and female prisoners serving a sentence exceeding one month.

Revenue

The value of articles made by prison industries was \$43,549.27 compared with \$42,259.75 for 1957.

BOYS' HOME

The Home, at Sungai Priok on the Pending Road near Kuching Town, was established in 1948. At the end of 1958 there were twenty-nine boys at the Home, two of them on remand. They were aged from twelve to eighteen. Discipline was good and there were no serious breaches.

Religious Instruction

A Muslim religious class was conducted four nights a week by one of the Home officers and the Malay boys attended services at the Mosque every Friday and participated in the celebration of the Prophet Mohammed's Birthday. Church attendances on Sundays and other Church festivals were arranged for the Christian boys.

Health

The health of the boys was good. The Home was regularly visited by a Medical Officer.

Home Activities

A Primary Six English class was started for six boys in April and conducted, on four afternoons a week, by Miss Martin of St. Mary's School and Mrs. Kong Yu Siong, M.B.E., of the Education Department. Two officers of the Kuching Fire Brigade gave several lectures and demonstrations on fire-fighting and the

boys also participated in a demonstration held at the Kuching Fire Brigade. Lectures and demonstrations on First Aid were given by Sister M. Lyen of the General Hospital with the help of two Hospital Assistants.

The Information Service cinema unit gave monthly cinema shows and the boys were also permitted to attend local cinemas without charge. This generosity by the Cathay Cinema and Mr. William Tan, the owner of the Odeon Cinema, was very much appreciated.

The annual Christmas party was held at the Home on 20th December, 1958. His Excellency the Governor was present and there was a concert and exhibition of handicrafts produced by the boys. Christmas gifts were made to the children of the Girls' Home who attended the party and to the children of the staff of the Home.

Occupation

The boys were taught basketry, carpentry, fruit-growing, fish-breeding, pepper, coffee, vegetable and poultry farming, and in their leisure hours, model-making. The Home was self-sufficient in vegetables and eggs and a surplus was sold for the benefit of the Amenities Fund.

Good Conduct System

This provided good conduct money at the rate of \$1.00 a week for any boy whose work and conduct was good.

Advisory Board and Parole

This Board, established in 1950 with the Director of Education as Chairman and six members appointed by His Excellency the Governor, held monthly meetings to review the progress made by those boys who had completed their first year of detention, and to make recommendations to the Chief Secretary for release on parole. The Probation Officer attended the meetings to report on home circumstances and other relevant matters and gave valuable help.

Amenities Fund

The fund gets its revenue from donations, the sale of surplus eggs and vegetables, and handicrafts produced at the Home and this, up to 31st December, 1958, was \$1,472.86. The fund is held under the control of the Superintendent of Prisons and some of the money was used for the entertainments at Christmas and the New Year.

XII

PUBLIC UTILITIES AND PUBLIC WORKS

WATER SUPPLIES

Kuching

A GOOD and continuous supply was maintained in Kuching. Water supplied to Kuching from the two sources at Matang and Batu Kitang was as follows:—

Matang	578,411,100 gallons
Batu Kitang	286,977,000 gallons
Total	865,388,100 gallons—

a daily average of 2·37 gallons to a population of about 60,000. A careful check was kept on the quality of the water. All the samples of treated water from Batu Kitang works showed a Class I water, and the samples from Matang were satisfactory for an untreated water. A great deal of attention has given to the inspection, repair, testing and if necessary the renewal of water meters, and this resulted in a substantial increase in revenue-earning water. Some 4,400 consumers are connected to the system.

The Government announced its intention to establish the Kuching Water Board to look after the water supply and much work was done this year in preparation for this.

No increase was made in reservoir capacity which is rather low and consists of the two tanks at Datu Muda Hill with a total capacity of 3,703,820 gallons when full.

Lundu

Work on the installation of this supply was completed in November, and it will be possible to accept consumers in 1959.

Santubong

The scheme installed in 1957 continued to work satisfactorily, and, though not a fully purified system, it met the needs of kampong dwellers and holiday makers in the bungalows.

Simanggang

Following the testing of the wells in 1957 material was bought and delivered and a contract let for the laying of the six miles of distribution mains. The contract was about two-thirds complete at 31st December, 1958. Chemical tests showed that the water will need treatment to remove the high iron content.

Sibu

A continuous supply of good quality water was supplied to consumers in Sibu. The water supplied from the Rejang through the Bukit Lima purification works was 258,739,000 gallons, a daily average of 710,000 gallons.

Here, as in Kuching, Government decided to appoint a Water Board to administer the water supply and much preparatory work was done. A complete survey of the supply was made and an extensive programme of new works compiled. The pipeline was laid as far as Sungai Merah and supplies given to consumers in Sungai Merah village.

Much work was done on inspection, testing, repair, and if necessary renewing meters and this, as in Kuching, has resulted in a substantial increase in the water recorded and paid for by consumers' meters. The water accounted for is now 80 per cent of that supplied from the works.

Sarikei

Supplies from the completed works continued and when the wells were pumped it became apparent that the water contained a very high iron content in solution which makes the water unpalatable to drink. Investigations were carried out by means of small Pilot treatment plant and a start made in designing the final treatment works. The scheme consists of three tubewells which pump water to an elevated tank, and the daily capacity of the headworks is 220,000 gallons.

Binatang

Construction of the water supply is complete and water was pumped to the town by one of the submersible pumps driven by a portable generator. The appearance of a heavy iron content means that purification plant must be installed. Water is pumped to an overhead tank of 150,000 gallons capacity. At present only a standpipe supply is offered.

Mukah

A continuous supply of water was maintained but consumption was restricted by the brownish colour of the water. The estimated population of 2,700 consumed about 54,000 gallons per day. There are 128 connections to the system.

Miri

Miri is supplied with a fully purified water of Class I quality, taken in bulk from the Sarawak Shell Oilfields Limited, Tank 103, and distributed through a system operated by the Public Works Department. The population estimated at 7,000 requires about 300,000 gallons per day. The service is very satisfactory.

Bintulu

This is a small gravity water supply and consists of a small dam four miles from the town. Water is piped into the town by a 6-inch pipeline. There is an elevated tank near the town centre. The population supplied is about 3,300 and the number of consumers is 203. There are thirty-six standpipes. The system operated well on the whole and supplied each day 110,000 gallons of fairly good class 4 water (untreated).

Limbang

An old supply feeds water to about 3,000 people direct from two impounding dams, Wassa Hitam and Sungai Poyan, with a combined capacity of about 310,000 gallons. The consumption cannot be given as there are no meters. Apparatus was delivered and installed to measure the performance of the system, so that recommendations may be made to improve the supply. There are 119 consumers.

Lawas

Lawas has a mass concrete impounding dam, a straining chamber and two miles of 5-inch pipeline. The capacity of the dam is about 800,000 gallons and water is supplied to the town untreated.

General

Water supplies are in the planning stage for Kapit, Kanowit, Song, Serian, Siniawan and Marudi. Much work has been done on planning and forecasting water rates.

GAS***Miri***

Applications for the supply of gas were received during the year. The number of services at the end of the year were 563.

BROOKE DOCKYARD AND ENGINEERING WORKS

The Brooke Dockyard and Engineering works is a public utility establishment under the control of a board of management of nine members, with the Director of Public Works as chairman, and the Manager as secretary. Of the seven members four are unofficial and three official.

The drydock, 240 feet long and 40 feet wide, was tidal till 1958, its entrance being closed by a steel caisson operated by the rise and fall of tide. Late in 1957 the caisson was subdivided into three watertight compartments to sink it into position as soon as a vessel is docked. Flooding valves are fitted to the centre chamber and the two divisional bulkheads. This is to save on overtime work. Two extra 12-inch flooding valves were fitted to the caisson to accelerate flooding. There is also a small slipway for launches up to 45 feet in length.

The machine shop was brought up to date with much new equipment.

The boiler-makers and platers section is also well equipped and steel work of all kinds is undertaken including the general overhaul of machinery and hull repairs, both steel and wood.

PUBLIC WORKS

Buildings and Civil Engineering Works

Upwards of 180 contractors are now included on the register of contractors and the system of registration, introduced in 1957, has proved extremely successful and has been generally welcomed. It has resulted in a marked improvement in the class and standard of workmanship and the finished products.

Building works in hand and completed covered most aspects of architecture. Quarters and living accommodation provided and under construction were as follows:—

	<i>Completed</i>	<i>In Progress</i>
Quarters Class I and II	40	12
Quarters Class III and IV	57	28
Barrack Accommodation	19	—

Miscellaneous building works in hand or completed included service quarters, schools, hospital extensions, canteens, dispensaries, offices, social welfare homes, telephone exchanges and many other works. In addition to a very large programme of new building the continual and vital programme of maintenance

works was carried through by both contract and direct labour. One very large rehabilitation job completed during the year was an extensive repair to the old Museum building.

Buildings completed during the year included the secondary school at Miri, the Chinese teachers training centre, Sibu, new kitchen and laundry for Sibu Hospital, a soils laboratory for the Agriculture Department, Kuching, a dispensary at Sebuyau, a rest house and an automatic exchange at Miri and a VHF workshop at Bintulu; a police station, customs warehouse, court house and a dispensary at Limbang, a government office at Sundar and PWD workshops at Limbang.

Wharves

Construction of a 2-berth wharf as the first stage of the development of a new port area for Kuching began at Tanah Puteh. Minor extensions and renovation works were carried out to numerous other wharves in all Divisions. A new commercial jetty was completed at Sebuyau.

Town Development

Work continued on the scheme for the development of bazaar areas in Sibu, Simunjan, Batu Lintang (Kuching), and Marudi, and with the reconstruction of roads in Miri.

Quarries

The major work was the completion of the erection of the new stone crushing plant at Sebuyau quarry, with screens, conveyors and a new jetty for loading directly on to the stone barges.

Airfield Construction

Lawas Airfield in the Fifth Division was constructed, with a grass runway suitable for use by Twin Pioneer aircraft. At Marudi in the Fourth Division the grass runway was nearly completed at the end of the year.

ELECTRICITY

The Sarawak Electricity Supply Company Limited, a Government-owned public utility company, provides electricity throughout the major centres of Sarawak. In 1958, an increase in the authorized capital from \$6,000,000 to \$10,000,000 was approved, and \$1,900,000 share capital issued. The issued share capital is now \$7,900,000.

Electricity supplies, dependant on the locality, are of AC 400/230 volts three phase fifty cycles or DC 460/230 three wire, with heavy oil engines as prime movers and hours of supply varying between twelve and twenty-four hours a day. The company operate sixteen generating stations with installed capacities ranging from 12 to 2,719 kilowatts, with primary distribution at the major centres of 6,600 volts.

The chief work now being undertaken by the company is the erection of a new power station at Kuching, with an ultimate capacity of eight 1,350 kw generating sets with heavy oil engine prime movers, and an associated 11 kv network to reinforce the existing 6,600 volt system. Initially, this station will accommodate three new 1,350 kw sets, and three 400 kw sets from the existing station. Civil Engineering Work was nearly completed, Set No. 1 partially erected, and the 11 kv network approached completion.

In Kuching three new substations were commissioned, the Kuching river submarine 6,600 volt supply cables duplicated, and the 11,000 volt overhead line linking the 7th Mile and Kuching networks partially erected.

At Sibu, the 6,000 volt overhead extension to Sungai Merah bazaar was finished, and new substations commissioned for the hospital and the Field Force camp. Miri was entirely converted to AC coupled with a complete overhaul of the low tension overhead lines. Betong was converted to AC and an additional generating set added. Conversion to AC at Binatang began. Further generating plant was installed at Serian, Marudi and Limbang and sets at Simanggang and Mukah approached completion. At Simanggang, a 6,600 volt network to meet load development is in course of erection.

A total of 11,554,378 units was sold, an increase of 11.5 per cent over 1957, and 1,093 new consumers were connected to the system, giving a total of 10,393 consumers at the end of 1958.

Public Electricity Supplies not under the control of the Sarawak Electricity Supply Company Limited

The licensing of minor electricity supply schemes, not under the control of the Sarawak Electricity Supply Company Limited continued under the Electricity Ordinance. The schemes are associated with small bazaar and settlements not considered to

be economic for development by the major supply authority. They are financed mainly by individual or collective effort in the communities concerned and provide no more than the amenity of electric light. Seventeen such schemes have been licensed so far, with a total installed capacity of 211 kilowatts.

The period of supply each day is normally six hours, though two schemes provide a 12-hour supply. Three small schemes provide DC supplies, and all the others single phase or three phase supplies at 230/400 volts 50 cycle alternating current.

XIII

COMMUNICATIONS

AIR

THE most notable event of the year was the arrival in June of two Twin Pioneer aircraft to join the fleet of Rapide aircraft of Borneo Airways Limited. More airfields were brought into operation in the internal air communications network. The Twin Pioneer with its remarkably short take-off and landing made possible commercial air communications to remote mountainous areas that could not previously be considered.

Sarawak depends on small airfields to maintain communication during the north-east monsoon between trading communities separated by vast stretches of jungle and wide, fast flowing rivers. These small trading centres are in turn connected with main line air services linking Sarawak with Singapore and the Malayan mainland on the one side, and Brunei and North Borneo on the other.

New airfields were brought into regular scheduled service at Lawas, Mukah and Simanggang and into occasional use for charter work at Sematan and Long Akah. Airfields were under construction at Belaga and Marudi.

Public Air Transport

Borneo Airways Limited with a fleet of two Twin Pioneer and three Rapide aircraft operated internal air schedules, and charter to small hinterland airstrips. It is a private company, with capital jointly subscribed by the Governments of North Borneo, Brunei and Sarawak, the British Overseas Airways Corporation and Malayan Airways Limited, the Governments holding the majority of the shares. The Company is registered at Kuching and the operating base is at Labuan.

Malayan Airways Limited with Douglas DC₃ aircraft operated daily services from Singapore, to and through Sarawak to Brunei, North Borneo and back.

Cathay Pacific Airways extended its weekly Hong Kong to Labuan service to Kuching.

Air services in operation at the end of 1958 were:—

INTERNATIONAL

<i>Class</i>	<i>Route</i>	<i>Frequency</i>
First	Hong Kong-Labuan-Kuching-Labuan Hong Kong	once weekly.
Tourist	Singapore-Kuching-Sibu-Kuching- Singapore	once weekly.
Tourist	Singapore-Kuching-Brunei Town- Singapore	once weekly.
Tourist	Singapore-Kuching-Singapore	once weekly.
First	Singapore-Kuching-Sibu-Labuan- Jesselton-Sandakan-Jesselton-Labuan- Brunei Town-Sibu-Kuching-Singapore	twice weekly.
First	Singapore-Kuching-Sibu-Labuan- Jesselton-Labuan-Sibu-Kuching- Singapore	once weekly.
Tourist	Singapore-Kuching-Sibu-Labuan- Jesselton-Sandakan-Jesselton-Brunei Town-Sibu-Kuching-Singapore	once weekly.
First	Singapore-Kuching-Sibu-Brunei Town- Jesselton-Sandakan-Jesselton-Labuan Sibu-Kuching-Singapore	once weekly.
Tourist	Singapore-Kuching-Sibu-Brunei Town-Jesselton-Sandakan-Jesselton- Labuan-Sibu-Kuching-Singapore	once weekly.
First	Singapore-Kuching-Sibu-Labuan- Jesselton-Sandakan-Jesselton-Labuan Sibu-Kuching-Singapore	once weekly.

INTERNAL

<i>Route</i>	<i>Frequency</i>
Labuan-Brunei Town-Anduki-Lutong-Bintulu- Sibu (Rapide)	twice weekly in each direction.
Labuan-Brunei Town-Anduki-Lutong-Bintulu- Sibu (Twin Pioneer)	twice weekly in each direction.
Sibu-Mukah (Twin Pioneer)	twice weekly in each direction.
Sibu-Simanggang-Kuching (Twin Pioneer)	twice weekly in each direction.

Route

Kuching-Sibu (Twin Pioneer)

Frequency

twice weekly in each direction.

Labuan-Lawas-Brunei Town (Twin Pioneer)

once weekly in each direction.

Private Aviation

Sarawak Shell Oilfields Limited frequently use, by service arrangement, aircraft operated by Brunei Shell Petroleum Company Limited who maintain their own fleet of three Percival Prince aeroplanes and have two S.55 helicopters on charter from World Wide Helicopters Limited. All these aircraft play a varied role covering communications, supplying drilling crews to marine locations and aerial surveys. The Borneo Evangelical Mission, which has long relied solely on air communications with light aircraft, maintained an Auster Autocar, to supply missionaries in the field. This mission has undertaken many "mercy flights", evacuating the sick from remote areas.

Military Aviation

Military aircraft of the Royal Air Force, Royal New Zealand Air Force and the Royal Australian Air Force continued to use Kuching Airport as a staging post between Singapore and Hong Kong.

Airports and Airfields

Kuching : International Alternate. 4,500 feet by 150 feet metalled runway.

Sibu : 3,600 feet by 150 feet. Extended to 4,500 feet by 150 feet by end of year and due to be part metalled in 1959.

Lutong : Private airfield owned by Sarawak Shell Oil Company. 1,080 feet by 150 feet. Licensed for operation by Borneo Airways.

Airfields Constructed for Internal Air Communications

First Division : Sematan. Second Division : Simanggang. Third Division : Mukah. Fourth Division : Bintulu, Long Akah and Barito. Fifth Division : Lawas Civil.

Airfields constructed by Borneo Evangelical Mission

Lawas Mission, Long Semado, Ba Kelalan, Lio Matu, Long Tebangan, Long Gong, Long Atip, Long Banga.

Airfields under construction at 31st December, 1958

Marudi and Belaga.

Air Traffic Control Services were provided by the Sarawak Government at Kuching, Sibu, Bintulu and Lutong, and Aerodrome Advisory Services at Sematan, Simanggang, Mukah and Lawas Civil Airfields. Meteorological synoptic observation stations at Kuching, Bintulu and Miri undertake regular observations in accordance with World Meteorological Organisation specifications, including day and night pilot balloon observations.

WATER

1958 was notable for a large increase in ocean shipping to Sarawak ports, most of it to Tanjong Mani where a larger number of vessels called with very little increase in cargo tonnage.

Coastal and Local Services

The Sarawak Steamship Company continued their Kuching—Sibu service with the MV *Rejang*. Other coastal ports are served by Chinese owned coastal vessels, but the Fifth Division continues to be neglected.

Overseas Services

Kuching

The Sarawak Steamship Company maintained a regular weekly service to Singapore with MV *Rajah Brooke* and MV *Auby*.

MV's *Hua Li* and *Hua Heng* of the Hua Siang Steamship Company called frequently mainly with packed oil products for Biawak Wharf.

The China Siam Line added a third ship, MV *Hermelin*, in October, giving a three-monthly service to and from Hong Kong, and in October also there began a regular monthly service from Australia by ships of the Royal Intercean Line, MV *Silindoeng*, *Sibigo*, *Sigli* and *Sinabang*. Other vessels called at Kuching, mainly from Bangkok with rice, maize, salt and pickled vegetables, about twice a month. Bulk oil ships called less frequently as a larger type of tanker up to 360' long is now acceptable at Biawak Wharf. In May the first ship arrived at the anchorage off Sematan for the export of bauxite from the Sematan Bauxite Company's mine.

Sibu, Binatang and Sarikei (Rejang River)

A regular service to the Rejang River Ports from Singapore was provided by vessels of the Sarawak Steamship Company and

the Hua Siang Steamship Company, up to eight vessels a month. Two of the China Siam Line ships also served Sibu. The third vessel called at Tanjong Mani only. The Royal Intercean Lines Australian services vessels called at Sibu once a month. Smaller bulk oil tankers served the installation at Sungei Merah, Sibu. Other tonnage with rice from Bangkok also called up to three times a month.

Tanjong Mani

This anchorage, about 16 miles upriver from the Rejang mouth, received a total of 772,010 tons of ocean shipping mostly for sawn and round timber. A little import cargo was brought for discharge into lighter, — mainly flour and creosote in drums, from Australia. The pioneering Blue Funnel and Ben Lines were supplemented by other well known British companies including the P. & O., and there are regular services to Hong Kong, the United Kingdom, European and Australian Ports by vessels of various flags.

The Government Fleet

Statistics kept showed that the fleet was none too large for the demand for official travel. No new craft were added and MVs *Kaka* and *Joan* were disposed of, being no longer economical to run.

A large amount of Public Works Department plant was transported to stations throughout the country by the scaled down LST type vessel *Tambadau* which proved to be a very useful craft. She ran a regular monthly service as far as the Fifth Division, distributing road and air field building equipment and returning it for overhaul; carrying household effects and cars for officers on transfer, heavy lifts for the Electricity Company, and thousands of coconuts for the Department of Agriculture's coconut planting scheme.

The two stone carriers supplied in 1957 also proved most successful and carried 45,316 tons of stone and sand.

Casualties

A major casualty occurred on 11th August when MV *Seng Ling II* overturned and disappeared off the Brunei coast on a voyage from Sundar to Kuala Belait with a cargo of gravel. Four hands were lost. An inquiry held in Miri found that the *Seng Ling II* had foundered because of a combination of circumstances which included the shifting of the gravel cargo,

the breakdown of the steering gear and the prevailing weather. The Chinese owned coaster MV *Hai Lee* was lost on Miri bar after grounding while entering. The MV *Lee Kiew* sprung a leak in heavy weather on a voyage from Bintulu to Miri and the crew and passengers were rescued by two Government launches. A few additional strandings took place at other shallow bar ports without great loss or damage.

Navigational Aids

All the major lights functioned satisfactorily except Tanjung Datu which was out for three days owing to a gas leak. There were occasional breakdowns in some secondary lights caused mainly by slight mechanical or electrical failure due chiefly to humid atmospheric conditions. Bintulu leading lights were electrified in March; and experimental anchor lights were placed at Tanjung Mani. Routine maintenance, and fuelling, was carried out by MV *Kenyalang* which continued to give excellent service.

A hydrographic surveyor joined the Department, on contract, in March and various surveys were completed. These consisted mainly of river bars, the largest being that of Kuala Rejang, where considerable change was found. In November a large scale survey of the Kuching River began.

Visits of Naval and other service vessels

H.M.A.S. *Tobruk* visited Kuching in January

H.M.M.S. *Panglima* visited Sibu and Kapit in April.

H.M.M.S. *Pelandok*, M.L. 3501 and M.L. 3502 visited Kuching in May.

H.M.S. *Alert* and H.M.N.Z.S. *Rotoiti* visited Kuching in September.

British Army LCT *Akyab* called at Kuching in September on Army Service.

British Army LST *Reginald Kerr* went alongside Biawak Wharf in October also on Army Service.

DEEP SEA TONNAGE 1958

	<i>Inwards</i>	<i>Outwards</i>
Kuching	237,786	212,216
Rejang River	912,715	866,930
Miri	2,892,887	2,890,502
Limbang	34,071	32,374
TOTAL	4,077,459	4,002,022

COASTWISE TONNAGE 1958

	<i>Inwards</i>	<i>Outwards</i>
Kuching	98,199	118,327
Lundu	4,822	4,785
Simunjan	15,566	17,515
Simanggang	9,005	10,083
Betong	6,048	6,248
Sibu	88,931	63,469
Binatang	20,463	21,167
Sarikei	20,853	19,128
Tanjong Mani	37,617	25,170
Balingian	5,948	5,897
Mukah	22,313	22,291
Matu	1,783	2,552
Oya	4,961	4,988
Miri	23,614	24,824
Bintulu	29,879	30,530
Baram	7,609	6,534
Niah	4,791	4,855
Sibuti	3,738	3,738
Tatau	5,714	5,631
Limbang	4,067	4,624
Lawas	1,930	1,605
Sundar	1,319	905
TOTAL	424,736	409,927

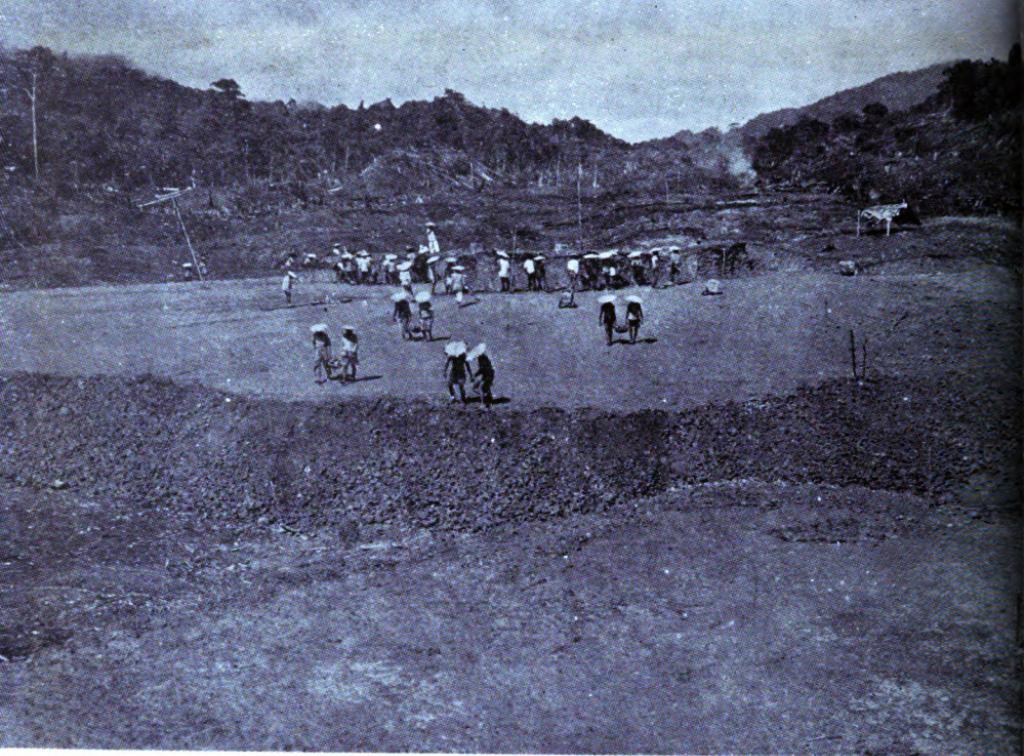
ROADS

Previous reports indicated the absence of a territorial road system and the fact that the rivers of Sarawak comprise the highway system. Such roads as exist are in the main town roads, with a few radiating from the more important towns. The first link in the future road system is now being constructed by directly employed labour. It is the Serian-Simanggang Road of some 82 miles which will link Kuching with Simanggang, the principal town of the Second Division. Work continued on the 24-mile link road from Sarikei to Binatang in the Third Division.

The road reconstruction programme continued, together with the construction of roads under the town development

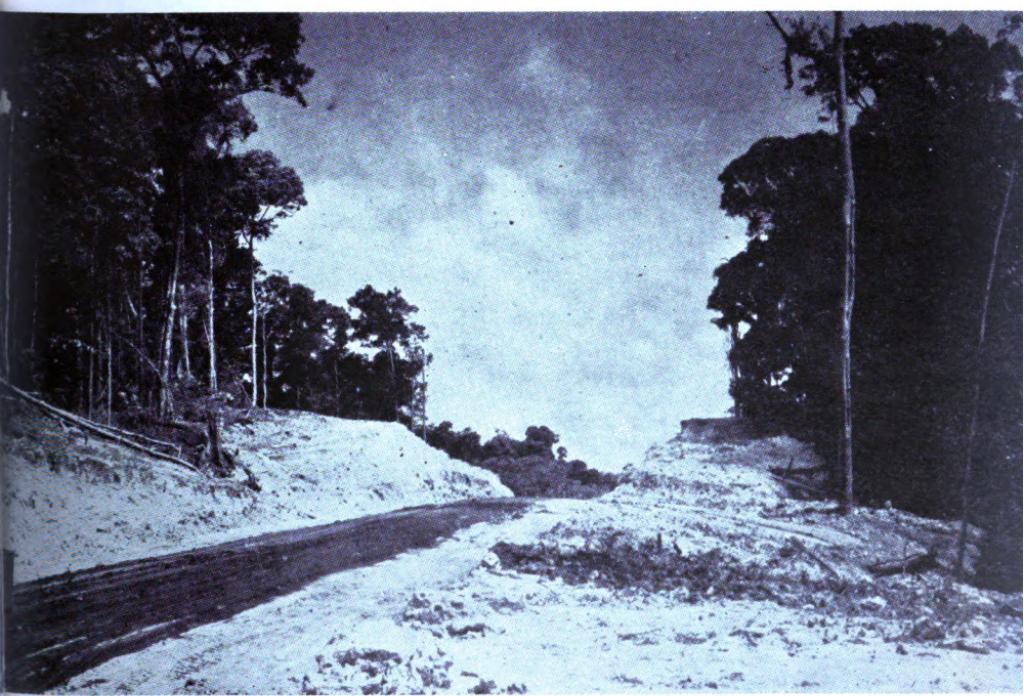
M.V. *Silindoeng* of Royal Intercean Lines, the first ship on the direct route between Australia and Sarawak, berthed at Kuching. (G.S.I.S.)





Above: Kayans, Kenyahs and Sekapans building the new airfield at Belaga by hand.
(John Seal)

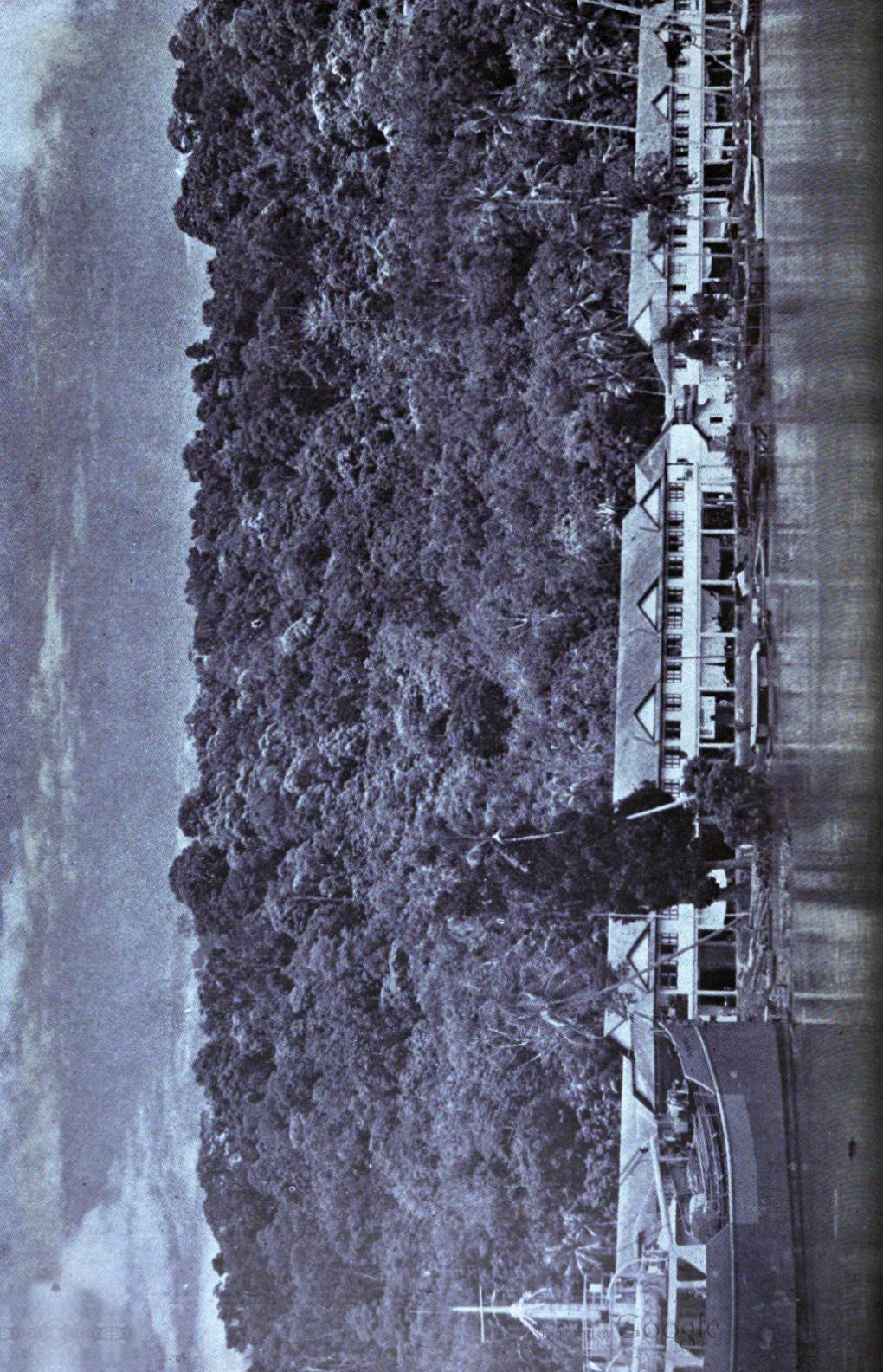
Below: The new airfield at Mukah in the Third Division. *(R.A. Bewsher)*



Above: The "road head", 22½ miles from Serian, along the Serian/Simanggang Road.
(Hedda Morrison A.R.P.S.)

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Below: Serian/Simanggang Road, March, 1958. (G.S.I.S.)



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programme, the major works being in Sibu, Sarikei, Mukah, Miri and Marudi.

Mileages of roads maintained by Government and by local authorities are:—

	<i>12 ft. and over wide</i>	<i>12 ft.—8 ft. wide</i>	<i>Paths under 8 ft. wide</i>
Bitumen or Concrete	108.48	1.28	—
Gravel or Stone	75.86	60.15	2.5
Earth	99.23	159.10	50.09
	<hr/> 283.57	<hr/> 220.53	<hr/> 52.59
TOTAL		556.69	

LAND TRANSPORT

The number of motor vehicles in Kuching continued to grow. The total registered at the end of 1958 was 3,093, an increase of 83 motor cycles, 253 motor cars, 63 lorries and 4 buses over 1957. The demand for driving licences also grew. 3,575 provisional driving licences were issued with 3,060 driving tests. 51 per cent of the applicants passed, 21 per cent failed and 28 per cent were not ready or refrained from taking tests. 6,515 full annual driving licences were issued.

The Organisation and Methods Adviser to the Government investigated the working conditions of the Department and recommended a number of measures designed to improve efficiency. Many of these measures were put into effect. A Commission of Enquiry was set up in August, 1958 to enquire into and report on the operation of passenger transport services in the First Division and submitted its Report.

TELECOMMUNICATIONS

PUBLIC TELEPHONE SERVICE

There was further expansion in the public telephone service and progress in various development projects.

Automatic telephone exchanges

The Kuching automatic exchange was extended to 2,000 lines and all intending subscribers were connected by October. 700 exchange lines remained available for connection, and The new bazaar at Limbang, headquarters of the Fifth Division.
(*Hedda Morrison, A.R.P.S.*)

development of the underground cable system continues. Extension of the Sibu exchange to 600 lines was completed in October, and new subscribers have been connected and the cable system developed. Plans for extension of the exchange to 1,200 lines in 1960 were made. The 400 line Automatic Exchange at Miri was completed and opened for service in July. All waiting subscribers were connected and 181 lines remained available. Equipment was ordered for a 101-line unit automatic exchange at Binatang and the contract for the exchange building was placed.

Manual exchanges

A 100-line CB exchange was installed at Sarikei making 200 lines available there; and a 24-hour service was introduced. A 100-line CB exchange was installed at Limbang.

There are 53 manual exchanges with 2,682 telephones, of which 884 were Government and 1,798 private.

Statistics

(Values are in decimals of million \$)

Year	TELEPHONES			TRUNKS		Total value service \$
	number	cash revenue \$	service value \$	cash revenue \$	service value \$	
1952	720	.022	.045	—	—	.045
1953	720	.024	.056	—	—	.056
1954	720	.027	.057	—	—	.057
1955	1,257	.072	.115	—	—	.115
1956	1,931	.110	.186	.041	.094	.280
1957	2,135	.271	.459	.120	.244	.703
1958	2,682	.375	.590	.170	.283	.873

NOTE: (a) Cash Revenue is collected from private subscribers for telephone rental and trunk call charges.

(b) Service value includes value of telephone and trunk calls provided for Government Departments.

VHF Radio Network

There are fifty-one outstations with VHF radio telephones linking them to zone centres at Kuching, Simanggang, Sibu and Miri.

VHF Radio Multi Channel Trunk System

The pilot scheme installed in 1957 continued to provide a high utility service between Kuching and Sibu and a limited

service to Miri and the Fifth Division. The ultimate scheme is designed to provide speech circuits between Divisional Headquarters for public use as well as for other services including telegraphs and broadcasting. Towers and equipments are being received and the expected improvement on the main trunk from Kuching to Miri will be obtained when towers and buildings are erected and brought into use.

PUBLIC TELEGRAPH SERVICE

Inland Telegraph Services are available between fifty-six places by wireless telegraphy or radio telephone. The Kuching-Sibu circuit is operated by teleprinters over the VHF network and plans were made for the Sibu-Sarikei, Kuching-Simanggang, Sibu-Mukah and Miri-Limbang circuits to be so operated. A number of the out-dated transmitters and receivers were replaced. External telegraph services are operated by direct wireless telegraphy from Kuching to Singapore, Jesselton and Brunei and from Miri to Seria and Labuan. The service to Singapore is by teleprinters. A new international external telephone service was planned and equipment ordered.

TELEGRAPH STATISTICS

(Values are in decimals of million \$)

Year	FOREIGN WORDS		INTERNAL WORDS		cash revenue \$	service value \$
	sent	received	Govt.	private		
1952	.82	.94	1.77	1.46	.23	.41
1953	.93	1.06	2.03	2.05	.25	.44
1954	.88	.89	1.81	1.99	.25	.42
1955	.96	.95	2.11	1.38	.28	.47
1956	.86	.95	2.42	1.42	.26	.46
1957	.93	.86	2.19	1.16	.21	.37
1958	.84	.46	1.68	1.09	.20	.41

NOTE: (a) Cash Revenue is in respect of private telegrams handed in for transmission at telegraph offices.

(b) Service value is the revenue which would have been collected if telegrams on Government service had been paid for.

Aeradio

At Kuching and Sibu aeradio equipment was operated, and partly staffed, by International Aeradio Limited. One technician and six ground radio operators were replaced by Posts and Telegraphs Department staff. The stations at Lutong, Bintulu,

Simanggang, Mukah and Lawas were operated and maintained by the Department.

Police Radio Network

The Police operated their own radio networks which were maintained by the Posts and Telegraphs Department. These consist of a HF network connecting Constabulary Headquarters with Divisional Headquarters, Brunei and Jesselton; a HF network within Divisions to mobile patrols; and VHF networks operating at Kuching, Sibu and Miri to mobile patrols in the town areas.

Marine Radio Network

The equipment is installed and maintained by the Posts and Telegraphs Department. The networks consist of a HF radio telephone service from Kuching to Sibu and launches; and a VHF Radio Telephone ship/shore service with shore stations operating continuously at Kuching, Tanjung Po, Tanjung Jerijeh, Tanjung Mani, Tanjung Sirik, Tanjung Kidurong and Miri.

POSTAL SERVICES

A new headquarters building was completed and the Postmaster-General and his staff moved in July. Space was thus made available in the General Post Office for an extension of the parcels and mails sections. New post offices were established at Julau and Sebuyau, and one planned for Sibu.

MAIL STATISTICS

The following tables show the other services of the Department:—

PARCELS

<i>year</i>	<i>value of COD parcels received from</i>		<i>number of ordinary parcels</i>	
	<i>U.K.</i>	<i>Malaya</i>	<i>despatched</i>	<i>received</i>
1952	54,800	527,500	14,280	32,350
1953	45,900	575,400	11,470	23,600
1954	36,500	579,200	13,130	28,320
1955	33,900	451,000	14,380	36,140
1956	29,290	390,640	17,770	40,700
1957	27,010	492,190	20,198	74,055
1958	26,225	451,515	21,723	45,856

NOTE: There is no COD outgoing service from Sarawak.

MAILS

(Values in decimals of a million \$)

<i>year</i>	<i>stamps sold value</i>	<i>service value</i>
	\$	\$
1952	.242	.364
1953	.358	.538
1954	.369	.553
1955	.436	.684
1956	.463	.694
1957	.664	.996
1958	.652	.978

NOTE: Statistics show that in all despatches the ratio of unstamped Government mail to stamped mail is approximately one to two.

Cash revenue is the value of stamps sold.

Service value is cash revenue plus 50 per cent.

XIV

INFORMATION, PRESS AND BROADCASTING

INFORMATION

THE work of the Government Information Service continued and expanded on the lines laid down in past years.

On the publication side *Sarawak by the Week* and *Sarawak Dalam Sa-Minggu* both increased their circulation in response to requests, and weekly production reached 750 copies of each. The monthly papers produced by the Information Service, *Pedoman Ra'ayat* and *Pembrita*, continued in popularity: 6,500 of each were printed. The editors of these papers were both granted in-service training scholarships and spent two months in Singapore and Malaya. The Departments of Information in both countries, and the Regional Information Office at the Commissioner-General's Office gave most generously of their time and skill in organising and carrying out these courses, and the Government is greatly indebted to them.

The *Sarawak Calendar*, in English, maintained its popularity, and apart from sales, several thousand copies were distributed to rural schools. The Iban calendar, first published for 1958, was warmly welcomed.

The Press Section of the office, greatly aided by the first full year's work of the Chinese press officer, increased its service to press and public. Special attention was given to publicity for development plans and achievements (particularly in the fields of education and scholarship awards); agriculture, medical and health services, civil aviation, public works and electricity supplies; to the proposals for the closer political association of the three Commonwealth countries in Borneo; and to economic development, with emphasis on the measures designed to improve the rubber and pepper industries.

The office also concentrated, by press and cinema publicity, press conferences, and wide-spread personal campaigns in Kuching and the Third Division, on the sale of the Government debenture issue.

Apart from many domestic press conferences, seventeen major conferences for important official visitors were organised. In these, and in all its press work, the Information Service maintained very close contact with the Broadcasting Service, and their unfailing collaboration was most valuable.

The work of four travelling cinema units was fully discussed at the Residents' Conference held in July and it was agreed that their work was of national value and should continue, with especial concentration on remote rural areas. The number of showings was, because of the increased time spent in travelling, slightly reduced, but the audiences reached the customary total of about 300,000. The headquarters of the unit stationed in Miri was transferred for three months of the year to Limbang. In replenishing the film library, as many films as possible with commentary in Malay were bought or borrowed.

The supply and circulation of the weekly *British News* film, and of other Central Office of Information documentaries, to all the cinemas of the country, was maintained.

The supply and standard of pictorial poster and other artistic production was maintained, but this work went into abeyance at the end of the year when the staff artist was awarded, by the Australian Government under the Colombo Plan, a scholarship for a year's training in commercial art at Melbourne Technical College.

Work began in October, and advanced fast, on the new Information Office in Mosque Road, Kuching.

The Hon. Sir Steven Runciman again visited Sarawak for two months in connection with his work on the history of the country, and travelled widely.

In March, in response to the frequent and generous hospitality extended by the Brunei Shell Petroleum Company Limited and Sarawak Shell Oilfields Limited to official and unofficial — and particularly press — visitors from Sarawak, the Government was host in Kuching to a party of six senior members of the companies' staffs. An ever-increasing stream of visitors, official, unofficial with defined purposes, and tourists seeking pleasure, were received and attended to.

The Information Services Advisory Committee met regularly at two-monthly intervals.

Close co-operation was maintained with the Information Departments in Brunei, North Borneo, Singapore and Kuala Lumpur; with the Commonwealth Commissions in Singapore; and with United States Information Services.

In March the Information Officer attended the annual inter-territorial meeting of information and broadcasting staff, in Jesselton, and received generous hospitality from the Government of North Borneo. In September, in Singapore, he represented the Government of Sarawak at a conference — the first held — of national information officers of the Colombo Plan countries. Eighteen countries, the United Nations, the World Health Organisation and the Colombo Plan Bureau, sent delegations and the conference was opened by the Chief Minister of Singapore, Tun Lim Yew Hock.

PRESS

Two new daily papers, both Chinese, began publication: *The Sarawak Times*, in Kuching, in April, and *Yueh Sheng Pau*, in Sibu in December. The Kuching bi-weekly, *Hwa Chiew*, ceased publication in November.

There are now eight Chinese and one English daily papers; and one Malay, thrice-weekly. These are listed in Chapter VIII of Part III of this Report (page 166) and their standards, both in quality of content and in style and production, continued to improve. In particular there was a marked increase in feature articles and comment on national and local affairs, and in the space given to readers' letters and opinions. These, on the whole, showed a valuable growth in intelligent concern with public affairs and in national loyalty.

The Chief Reporter of the *Sarawak Tribune* spent the whole year in Australia, on a Colombo Plan scholarship given by the Commonwealth Government, gaining practical experience in journalism; and the editor of the *Sarawak Vanguard*, also under the Colombo Plan, was given a six-week tour of Australia.

BROADCASTING

Radio Sarawak's new service was inaugurated on April 28th, 1958 with a broadcast by the Governor. Since then the Service has broadcast daily twelve hours of programme time on two simultaneous transmissions, each radiating on both the medium

and short wave bands. A powerful new short-wave transmitter was brought into operation which greatly improved coverage throughout the country and beyond. All building works and extensions were completed by March and a great deal of new studio and engineering equipment was installed in the new accommodation thus provided. This stage marked the completion of Radio Sarawak's expansion as planned and approved in 1956 and for this the Service has again to thank the United Kingdom for generous financial aid, amounting to over \$325,000. The three centres of Radio Sarawak, which are Broadcasting House, the transmitting station and receiving station, have now been made ideally capable of carrying out their greater tasks. The facilities provided may properly be claimed as among the best in South-East Asia.

Two members of the staff returned from a period of professional training with the Canadian Broadcasting Corporation and with the BBC, and two others undertook a special course for overseas broadcasters conducted by the BBC in London and greatly profited from the experience and knowledge they gained.

The Schools Broadcasting Service successfully concluded its pilot scheme and its regular service to schools is due to be inaugurated early in the New Year. Its initial effort will be directed to rural primary schools and by this means it is hoped that Iban students in this grade will be able the more quickly to gain educational parity with other races.

The variety and content of programmes showed a perceptible and steady advance during the year and the large daily mailbag from listeners, both inside the country and abroad, increased accordingly. Studio production methods are now very up-to-date and with the steady advance of local artistic talent this contributes to the provision of programmes of high merit.

In one important respect Radio Sarawak well sustained, and indeed enhanced, its standards. Many programmes of the highest adult appeal were broadcast, in which there was always an intelligent give-and-take on controversial matters of public interest. The service encouraged from the outset full freedom of expression in its spoken word programmes and fair comment and criticism are usually forthcoming, no matter on what subject. Local contributors have always reacted to this policy in the most tolerant and fair-minded manner and displayed a high degree

of responsibility and moderation. On polemical issues, whether local or international, the service aims at a positive approach. No negative propaganda of any sort is broadcast by Radio Sarawak and in this connection His Excellency the Governor, when he inaugurated the new Service in April, said this:

"Radio Sarawak has acquired a reputation which it is important to maintain. In 1954 I enjoined the service to 'speak the words of truth and tolerance and friendship to all'. My hopes have not been disappointed, and a precedent has been set which I believe has embalmed the high principle involved. The Government will be more than satisfied for the effort and the money expended if Radio Sarawak becomes a genuine mirror of public opinion and encourages the peoples of this country to know each other the better".

XV

LOCAL FORCES

THE Sarawak Rangers had another successful year in Malaya and their competence and bearing while on active service fully justified the high regard in which they are held both by the regiments to which they are attached and by the peoples of their home rivers. Unfortunately, this fine reputation was not made without a sacrifice, for Private Nyambek anak Pasang of Rumah Jumbi, Kapit was killed while in action with the 1st Battalion The Loyal Regiment (North Lancashire).

The normal strength of the Sarawak Rangers on active service slightly increased from 225 in 1957 to 248 in 1958, while the strength on the Reserve rose from 450 to 542. 115 new recruits were taken from the Second and Third Divisions during the months of January and October. Sixty of these recruits were from Kapit and Kanowit districts and 55 from Engkilili and Lubok Antu. Both recruitments were under the direction of a locally born gazetted officer, Lt. Francis Bucking, who himself acted as the recruiting officer.

The period of service for the Sarawak Rangers is seven years, two years on active service outside Sarawak and five years on the Auxiliary Police (Field Force) Reserve. For each completed year of active Service in Malaya a Sarawak Ranger is entitled to 30 days' leave to be spent in Sarawak and thereby his link with his family and people is not entirely cut off. There were eight leave parties this year all of which were under the command of the Iban N.C.Os. and there was not a single case of desertion, absence without leave or overstaying home leave.

One hundred and one Rangers finished their two-year contract of service in Malaya and were honourably discharged during the year. The service of certain key NCOs was extended for a further year.

There were several awards during the year. Warrant Officer Class II Gon anak Samada received the British Empire Medal (Military Division) in recognition of his distinguished services in

Malaya and the following seven Rangers were awarded Mentions in Despatches for their gallant and distinguished conduct while fighting the Communist terrorists: C/Sgt. Jimba anak Layang, Cpl. Kayen anak Balleh, Pte. Sigai anak Jugam, Pte. Lameh anak Gruna, Pte. Ingau anak Jenta, Pte. Naga anak Kadir and Pte. Nyambek anak Pasang (deceased).

Camps were again held at the Bukit Siol Field Force Training Centre for the Sarawak Rangers on reserve serving as members of the Auxiliary Constabulary (Field Force) Reserve and 233 men took part in the training programme, 116 in May and 117 in October.

PART III

I

GEOGRAPHY AND CLIMATE

SARAWAK lies between latitudes $0^{\circ} 50'$ and 5° North and longitudes $109^{\circ} 36'$ and $115^{\circ} 40'$ East, occupying most of the north-western coastal area of the island of Borneo. With an area of about 47,500 square miles the territory covers a little less than one-sixth of the island, which is the third largest in the world and the largest of the 3,000 or more islands comprising the East Indies Archipelago.

The boundary between Sarawak and Indonesian Borneo follows the watershed between the rivers flowing generally north-westerly into the South China Sea and those flowing into the Celebes and the Java Seas. Although much of this watershed is not particularly high the country is generally rugged and topographically complex, and the boundary is unsurveyed. Because of the almost continuous presence of heavy cloud, parts of this boundary and the adjoining Sarawak territory have not yet been covered by satisfactory air photography and only preliminary reconnaissance mapping is available. In the north, Sarawak adjoins North Borneo and in the north-west the State of Brunei forms a double enclave. The boundaries between Sarawak and these two countries run through much easier country and sections have been surveyed as the need has arisen.

Mount Murud, of about 8,000 feet, is Sarawak's highest mountain, dominating an area of practically unexplored ravines, plateaux and involved mountain ranges rising to over 5,000 feet. A little knowledge of this area has been gained by visual reconnaissance from Royal Air Force aircraft and by various expeditions, notably those of the Sarawak Museum, the Geological Survey Department and the Oxford University Expedition to the Usun Apau Plateau region in 1956.

The remainder of the country comprises an alluvial coastal plain and a belt of undulating country separating the coastal plain from the sharply rising mountainous interior. The coastal plain varies in width from less than a mile at Miri to over a hundred

miles, and contains large areas of peat swamps of various depths. The beaches are generally of mud and mangrove or nipah palm. The belt of undulating country is broken by a few mountain groups, generally not more than 2,500 feet in height. Shallow coastal waters and the existence of bars at river mouths limit the development of deep sea ports.

The main rivers rise in the interior ranges and flow fast through deep gorges and over numerous rapids until they reach the undulating country and the coastal plains, where they meander towards the sea. In spite of the high rainfall and the steepness of the interior mountains no spectacular waterfalls have yet been discovered, the rivers descending to the undulating country in a series of rapids rather than by waterfalls. The largest river, the Rejang, has a length of 350 miles and is navigable for small coastal steamers as far as Kapit, a hundred and fifty miles up-river.

The greater part of Sarawak is still covered by primary rain forest, and about three-quarters of this is practically uninhabited except for scattered bands of nomadic Penans. Much of the remainder of the land is used for agriculture. One distinctive feature of the country is the large areas of swamp forest. These forests produce the bulk of the timber exported, notably ramin, one of the main exports and used extensively in Great Britain and Australia for making furniture. There are a few small areas of natural grassland near the coast on which cattle are raised, but grazing land, either natural or developed, is very limited. A shortage of cattle for draught purposes and for meat is most notable in the central and southern parts of the country.

Principal Towns

Kuching, the capital, is situated on the Sarawak River eighteen miles from the sea and can be reached by ships of up to 2,500 tons. Besides being the seat of government for Sarawak, Kuching is the administrative headquarters for the First Division. The town continued to grow and the population is estimated at about 56,000 of whom the trading community is mainly Chinese, with large Malay and other smaller communities occupying suburban areas. The main part of the town, with its wharves and warehouses, Government offices, museum and other public buildings, schools and places of worship of the various communities, and the main residential areas, is on the south side

of the Sarawak River. Access to the north side is mainly by small passenger ferry, but vehicles may reach the northern residential areas across the river by a suspension bridge and a minor road. On the north bank of the river directly opposite the centre of the town are situated the Governor's residence, Astana, formerly the palace of the Rajahs of Sarawak and Fort Margherita, another link with old Sarawak. Behind these buildings are residential areas and on the river banks upstream and down are extensive Malay kampongs. The business part of the town and the inner suburbs are administered by a fully-elected Municipal Council and control of the outer suburbs and residential areas is in the hands of the Rural District Council.

Sibu is the second largest town in the territory and is also expanding very fast. It lies about eighty miles from the sea at the head of the Rejang delta and can be reached by ships of up to 2,500 tons. The population is estimated at about 35,000 and the town is the administrative headquarters of the Third Division. It is low-lying and subject to flooding when the spring tides coincide with the arrival of floodwaters from the Rejang catchment areas. The inhabitants of the town are mainly Chinese, with Malay, Iban and Melanau settlements adjoining the business areas. Sibu, with Sarikei and Binatang lower down the river, handles a large proportion of the import and export trade of the company.

Miri is the administrative headquarters of the Fourth Division and owes its existence to the opening of the Sarawak oilfields in 1910. Although oil is still produced, the neighbouring oilfields of Brunei have become of far greater importance. All the oil won in British Borneo is exported through Lutong, in Sarawak and seven miles north of Miri. The Miri river has a shallow bar which prevents all but small coastal vessels from entering, and the shallow coastal waters force larger ships to anchor about three miles out to sea. General cargo is handled by lighter and oil from the Lutong refinery and storage tanks is loaded through underwater pipelines.

Simanggang and Limbang are the administrative headquarters of the Second and Fifth Divisions respectively. Both have bazaars and wharves for coastal and river launches. Navigation on the Lumar River, on which Simanggang lies, is hampered by a tidal bore.

Binatang and Sarikei are the main towns of the Rejang River delta and are important ports for overseas shipments of pepper, timber and other products of the Rejang River plains. The Tanjong Mani deep water anchorage further down the river can accommodate vessels of up to 10,000 tons.

Of the other towns Bintulu is the largest and development of this coastal town should follow the opening up of the hinterland for rubber growing.

CLIMATE

The characteristic features of the climate of Sarawak are heavy rainfall, a uniform temperature and high humidity.

The mean annual rainfall at Kuching is 158 inches. This, compared with London's mean annual of twenty-four inches, New York's forty-two inches, and even Singapore's ninety-five, is tremendous. It is not unusual for rainfall to exceed eight inches in a day at one place (especially during the north-east monsoon) whilst at another place sixty miles away there is no recorded rain. A large area of the country receives between 120 to 160 inches of rain. The highest recorded fall is at Long Akah up the Baram River, with a mean annual rainfall of 236 inches.

The temperature varies between 72°F and 88°F at sea level, with a mean temperature through each twenty-four hours of 78°F. At 6 a.m. the mean relative humidity for the year is 98 per cent and at 2 p.m. 70 per cent.

From the beginning of October until nearly the end of February, the north-east monsoon brings heavy rainfall, particularly in the coastal belt. The monsoon moves fairly uniformly across the China Seas, but once south of latitude 5°N, its average speed decreases, and at times its boundary may become stationary or even make a temporary retreat. The rain accompanying the boundary may then persist for several days and add substantially to the total rainfall. An exposed coastal belt like Sarawak is therefore heavily influenced by this boundary layer on its southernmost trends, giving a rainfall of twenty inches and more during — usually — November, December and January, whilst areas in Borneo south of Sarawak (except the north-west coast of Indonesian Borneo) are sheltered from this.

Four seasons can be distinguished : the north-east monsoon — as has been said — from October to January or February; the mild south-east monsoon from April to July or August, and

two shorter seasons of about eight weeks each, separating the end of one from the beginning of the other.

During the south-east monsoon, Kuching's mean monthly rainfall is nine inches, mostly in the afternoon between three and six o'clock. At Miri during the same period the heaviest rain is from thunderstorms of sharp intensity during the early hours after midnight. During these months particularly, the form and movement of storms make it doubtful that a single observation station in a given area, say Miri Town, is at all representative of rainfall in the immediate surroundings. There are insufficient observation stations in concentrated areas to make siohyetal patterns associated with individual storms. Yet it is from these thunderstorms that the heavy rainfall comes.

In spite of the heavy rains, there are long periods of bright sunshine. From March to October there are usually between 180 and 220 hours of bright sunshine each month. From November to February, there are between 100 and 180 hours of bright sunshine monthly.

There is no weather forecasting office. There are three meteorological observation stations and forty-three rainfall recording stations.

Appendix D on pages 190 to 192 gives climatological summaries for Kuching, Miri and Bintulu.

II

GEOLOGY

SARAWAK is composed mainly of recently formed rocks. The oldest formations are only about 300 million years old, and so barely one sixth of the world's recorded geological history is represented here. The most ancient rocks in Borneo are in the west where "Sunda land", a partly submerged extension of continental Asia, builds part of the island. Sarawak includes some of this area, and in the country are found most of the main rock formations which build Borneo, so her geological history is a miniature history of the whole island. Some Palaeozoic rocks occur, but Mesozoic and Tertiary deposits predominate; the most extensive and complete formation is the Tertiary, and here is found one of the fullest successions of these deposits in the world. A description of the main rock groups appear in the 1955 Report in this series. Work during 1958 yielded some new data about some of the older rocks and a revised estimate of the make-up of Sarawak's 47,000 square miles is shown below:

<i>Formation</i>	<i>Area (square miles)</i>
QUATERNARY	7,100
TERTIARY	15,000
	18,600
	5,000
CRETACEOUS AND JURASSIC	860
TRIASSIC	455
PERMIAN	9
PRE-PERMIAN (?)	285
IGNEOUS	1,700

GEOLOGICAL MAPPING

A compilation map and report incorporating the results of all geological work done in Sarawak was started in 1958. This work is being done in co-operation with the geologists of Sarawak

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Shell Oilfields Limited, and information is being plotted on maps on a scale of 1:250,000 (about 1 inch to 4 miles) and previous geological work is being reassessed. Good progress was made in preparing these maps. The data for Sarawak are being assembled with information from Brunei and North Borneo, so that a regional picture of the geology will be available.

Geological mapping has now been completed over 23,640 of Sarawak's 47,000 square miles. The geology and mineral resources of these areas are shown on coloured geological maps mostly on a scale of 1:125,000 (1 inch to 2 miles) and described in the four memoirs listed in the Bibliography (Part III, Ch. IX). During 1958 three regional surveys were in progress over a further 23,000 square miles; these surveys will take another few years to complete. Work on the first of these surveys, covering about 10,000 square miles in the lower Rejang Valley and adjoining areas, is well advanced. The second covers most of the Baram Valley and the Baram headwaters including the remote hinterland Kelabit Plateau, and it will be some time before this is finished. The third survey is of north-east Sarawak which is being mapped at the same time as the State of Brunei; by the end of 1958 much of the area had been examined and drafting of the geological maps and memoir had been started.

RESEARCH

Research work, which has been going on steadily during recent years, increased during 1958, and a variety of investigations is in progress. The survey depends for specialist assistance to a large extent on the help of outside organizations, such as universities, the Mineral Resources Division of the Directorate of Overseas Geological Surveys, the British Museum, and the Royal Dutch Shell Group. Such co-operation has greatly added to knowledge of the geology of the area. Investigations in progress include palaeontological research, chemical analysis of rocks, testing of constructional materials, and examination of the gold extraction process used at Sarawak gold mines.

All available rock analyses from British Borneo were assembled and classified; the 188 analyses available are of igneous rocks ranging from ultrabasic to acid, and a number of sedimentary rocks. For specialist palaeontological research, the survey depends mainly on the co-operation of the palaeontological laboratories of the Royal Dutch Shell Group in Brunei, and on

the British Museum, London. In 1958 the Shell Group increased basic palaeontological research on material collected by their geologists and the Geological Survey, a significant advance being the increasing application of pelagic foraminifers for stratigraphic zoning. The British Museum made special investigations of foraminiferal limestone from the Baram Valley. Algal limestones were sent for examination to the United States.

Earlier, the ages of several igneous rocks from west Sarawak were determined by the United States Geological Survey using lead isotopes in zircon. During the year the possibilities of applying this method to some of the igneous rocks in North Borneo were examined. It seems, however, that other methods, such as the one using the breakdown of potassium isotopes, may be more suitable. Some Sarawak rocks are awaiting determination by this method at the University of Toronto.

Research done on a number of economic problems is described in the section on economic geology below.

ECONOMIC GEOLOGY

The most practical demonstration of the value of economic geology is the bauxite industry which, as recounted elsewhere in this Report (pp. 2 and 29), started exporting ore last year. Found by the geological survey and prospected under the department's supervision, bauxite mining started as a result of descriptions of the deposits in geological publications interesting a mining company. Geological investigations and prospecting for more deposits re-started and is yielding encouraging results. During a year of economic recession this formed a brighter feature. Other mineral resources also were not severely depressed; details are given on pages 59 to 65 *ante*.

Research on a number of economic problems continued and work on new matters was started. Investigation of cement-making possibilities progressed. It was established that large reserves of suitable pure limestone exist in the Batu Gading area on the Baram River, east Sarawak. Preliminary tests by the Mineral Resources Division of the Overseas Geological Surveys, London, show that the river mud in the Baram Estuary is suitable for mixing with the limestone to produce Portland cement. Surplus natural gas from the Seria Oilfields is available in the area. Market trends and transport facilities would require investigation to decide whether a cement industry is an economic proposition

there. Investigations in the Bau District of west Sarawak indicate that suitable raw materials exist there also, although no natural gas is available. A local company, and companies from London, Hongkong, Malaya, and Japan, have expressed interest in the possibilities of establishing a cement industry in Sarawak. Deposits of sand suitable for glass making were discovered and investigations are in progress.

Geologists continued to co-operate with Public Works engineers on civil engineering projects, such as the search for stone, underground water supplies, and the examination of bridge foundations and dam sites. An important advance made during the year was proof that terrace areas, recognizable from the stereoscopic examination by a specialist of air photographs, in some areas may cover deposits of gravel and cobble stones. This gives a quick method of helping determine the possibilities of obtaining such stone in many of the stone-short coastal and foothill regions.

GEOLOGICAL SURVEY DEPARTMENT

The Geological Survey office in Kuching is the headquarters of the combined department established in 1949 for British Borneo, and from there geological work is directed over the 80,000 square miles of the three territories. It is also the base from which the geological mapping of Sarawak is made, expeditions going into the hinterland for trips ranging from a few weeks to several months. Advisory work for the Government and the public is also done. The headquarters include a laboratory, and a museum displaying exhibits of the country's geology and mineral resources. Attached to the museum is a geological reference library and a collection of past geological and mineral exploration records, providing valuable information for miners and engineers.

III

HISTORY

I — PREHISTORY

Stone Ages

THE most important work undertaken in this field during 1958 was the excavation of the Niah Caves in the Fourth Division. As a result of two earlier "seasons" digging there (1954 and 1957), which developed slowly from initial reconnaissance of the cave as a promising archaeological site in 1947, Niah has now become world-renowned. It is, moreover, the only large-scale stone-age research at present being undertaken in the field in South-east Asia — largely because of culturally changed or politically disturbed conditions in other territories previously active in the study of prehistory.

The 1958 dig, from February to May, was undertaken on a much larger scale than hitherto, thanks to a generous grant from the Calouste Gulbenkian Foundation of Lisbon, as well as the continuing support of the Borneo Group of Shell Companies; financial support from the Sarawak Government was further continued and increased in 1958 also.

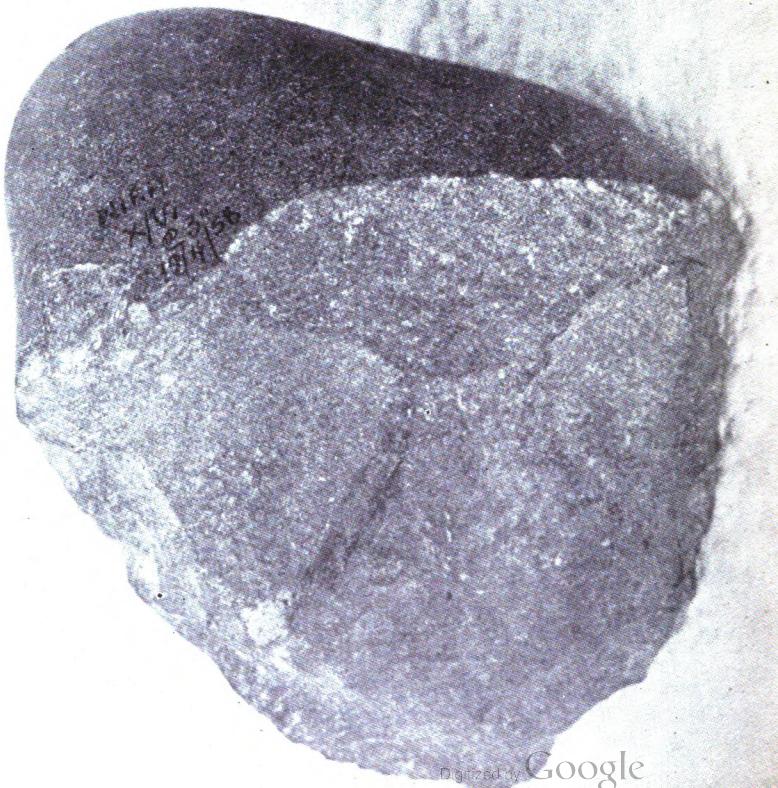
It will take some years more to complete the initial phase of the Niah work. But already it is fair to say that results have altered our whole understanding of Bornean prehistory, and in some respects thrown new light over the whole area.

By the new method of measuring declining radioactivity in Carbon, it has been possible to get some quite accurate dates from Niah. The deepest — and therefore oldest — so far in the deposit gives a date of about 38,000 B.C. The highest — and therefore the youngest — material in the main site, which is in the west mouth of the Great Cave, gives a date of just about 500 B.C., which appears to represent the beginning of a metal (?bronze) age at Niah.

These Carbon-14 ("C₁₄") terminal dates — and series of intermediate ones — from Niah have been determined by Pro-

A deformed human skull, probably of the late Stone Age (c.1000 B.C.) from the Niah Cave excavations, 1958. (Sarawak Museum)





fessor H. de Vries at the University of Groningen in Holland; his laboratories are considered one of the three most accurate in this newly developed type of work. The margin of error in the top sample is \pm 65 years, and in the bottom one the formal result reads:

GR 1339:39,600 \pm 1,000 years (1958).

During the 1958 season, attention was concentrated on further exploration of the upper levels; above 100 inches and mostly above 72 inches. Deeper tests have proved that human and related remains actually continue much deeper; and these deeper levels will be a main concern in 1959-60.

At the present stage it is only safe to generalise for the upper levels and in a preliminary way. Nevertheless, even this initial picture, subject as it is to extensive modification as a result of further study, provides much the fullest picture yet obtained from any one site, in orderly sequence, in South-east Asia.

PRELIMINARY NIAH PHASEOLOGY (as dug so far)

<i>Phase</i>	<i>Main Characteristics</i>	<i>Approx. Niah Start Date (estimated)</i>	<i>Methods of Dating</i>
1 Middle Palaeolithic	"Mid Sohan" Flake	40-50,000 BC	Flake below C-14 (GR 1339)
2 Upper Palaeolithic (i)	Chopping tools and large flake tools	30,000 BC	Strata with C-14
3 Upper Palaeolithic (ii)	Small Flakes	25-30,000 BC	C-14
4 "Palaeo-Mesolithic"	Advanced Flake	10,000 BC	C-14 and Stratification
5 "Mesolithic"	Edge-ground tools; Melanoid dentitions	c. 7,000 BC	Stratification
6 Neolithic (i)	Polished tools; Mongoloid dentitions	c. 4,000 BC	Stratification, comparisons and C-14
7 Neolithic (ii)	pottery		
8 Chalcolithic	Bronze traces; elaborate pottery	c. 250 BC	Known associations and C-14

Although there has been appreciable success in reconstructing an intelligible prehistory, backed by many thousands of valuable specimens (prehistoric pottery, stone and bone tools, Two palaeolithic hand-axes from the Niah Excavations, 1958. (*Sarawak Museum*)

archaic beads and more than one hundred human burials of the stone ages) it should be emphasised that results can not be obtained quickly. Indeed, the story of archaeology in Sarawak—and it is the same for all Borneo—goes back eighty years.

As early as 1878, following the great arguments of evolution and Darwinism, the Royal Society in London and the British Association for the Advancement of Science, stimulated by reports from the co-founder of Darwinism, Alfred Russel Wallace (who spent two years collecting in Sarawak), sent an investigator to explore the Niah and Bau Caves. The investigator was A. H. Everett, a naturalist sponsored by learned societies and a professional collector for the London Zoo, British Museum and other bodies. The results of nine months' cave exploration, reported by Everett as covering thirty-two caves, were published by the Royal Society in 1880. The result was a total blank from the pre-historical point of view. The report advised that it was useless to continue such studies at Niah, Bau or elsewhere in Sarawak. The effect was somewhat discouraging for the curious-minded who came after Everett.

The story since then illustrates the difficulties inherent in carrying out proper and thorough studies of this kind, in a country like Sarawak, with its difficult communications and sometimes very uncomfortable jungle-conditions.

Since Everett, there has been much speculation and various unsuccessful searches. Not only did these fail to prove the presence of very early man; there was no evidence of an acceptable kind even of the Neolithic or later stone age people, let alone the pre-agricultural Mesolithic and the primitive Palaeolithic—all now so firmly documented at Niah.

In 1947, the Sarawak Museum began to make more organised and prolonged efforts to fill in some of the missing bits of knowledge. The first problem was to know where to begin. That is always much the most difficult thing in this sort of investigation in this sort of country. There are virtually no permanent open spaces in Borneo. Sooner or later, everything reverts to jungle, every building is overthrown and every grave disturbed by the forces of nature. The obvious place therefore to begin an investigation of this sort is in a cave. The mouths of caves provide the only bits of dry ground in Borneo which never get over-grown by vegetation; and only occasionally are they

disturbed by the innumerable burrowing animals and insects of the jungle.

Unfortunately, however, human beings like caves just as much nowadays as their ancestors are supposed to have done in the past. The caves of Borneo provide two tremendous attractions. On the vast ceilings of the caves there are millions of bats and tiny swiftlets which, with their salivary glands, make cup-like nests; these, suitably cleaned, dried, and boiled are the basis of Chinese birds' nest soup — one of the most expensive of foods. On the floor of the caves these same swifts plus bats deposit an endless supply of guano; in some caves this may reach a depth of more than 100 feet. This guano is the only locally available fertiliser in Borneo.

In consequence, most unfortunately for the archaeologist, the floors of practically every cave in the island have been not only disturbed, but a large extent removed, by man.

In the early cave explorations, which were undertaken by the Museum in conjunction with Raffles Museum of Singapore, more than thirty caves were examined and excavated in the Bau district. Although a mass of interesting information about early occupants of the caves was obtained, it was invariably rather chaotic because of disturbance. The answers were exciting but unsatisfactory, stimulating but incomplete.

It was not until Sarawak Oilfields Limited had started drilling in the Niah river area that occasion arose to visit there and make a thorough preliminary examination of the great cave a mile back from the Niah river in the limestone hills of Gunong Subis. Even a cursory inspection of the ground showed immediate evidence of human remains, and here there was something unique. Because the cave mouth is so huge, both by height and width, it is also much lighter than any of the other caves, even including the very big ones in Mount Mulu on the Tutoh, further north in Sarawak. So much light in the caves mouth means that swifts and bats do not frequent that area—and only live further in where it is 'good and dark'. There is therefore no reason for anyone to start messing about on the ceiling or digging anything up off the floor; there are no birds' nests and there is no guano in the mouth of the Niah cave.

So, with high hope, feeling at least they had found the right cave, the Director of the Raffles Museum (Michael Tweedie),

photographer Hugh Gibb and a Sarawak Museum party began a more thorough, but still reconnaissance, excavation in the Niah cave mouth in October 1954.

Only two sections of the cave mouth were explored—one in towards the darkness, the other right out in the mouth and in the full light (but still well protected from rain and wind).

This difference between the outer and inner mouth was reflected in what was found. On the inner side, the whole cave floor appears to be nothing less than a stone-age cemetery. The skeletons were in some cases quite perfect, small people—smaller than the people who live round Niah today. On or beside the bodies were placed stone implements, including some beautifully made and polished stone axes and adzes. The head of the skeleton was usually crushed in, with a large, crude home-made earthen-ware pot placed as a sort of second head piece. The body had been laid out on coarse leaf matting, then wrapped round (in some cases but not all) with very fine netting—the texture and mesh of a child's shrimp net.

This matting and netting, although extremely primitive, is nevertheless the first stuff of its kind ever found associated with stone age burials or occupations in this part of the world. It suggests that this group of stone age people at Niah were in some ways remarkably advanced as compared with those discovered under similar conditions elsewhere. But it is necessary to recognise here that the conditions at Niah are extraordinarily favourable to preservation over many centuries; and we are now talking about matting which must have been made probably many hundreds, perhaps many thousands, of years ago.

The cave mouth is so perfectly dry, and the limestone walls act as a kind of air conditioning in the cave—making it, incidentally, one of the most delightful places to work in and the only one in Borneo where we have ever been able to keep cool while digging. So it is possible that these finer things of primitive life have only been found, so far, at Niah because the conditions for preservation are so excellent there.

But in support of the belief that the people themselves were quite advanced, although still living in the stone age, there is the evidence of the already mentioned earthen-ware pottery. Some of this is of better make and finer finish than similar pots which are still being made today by the Dayaks in the Balleh,

the Kelabits in the uplands and other Borneo people who live too far away from Chinese shops to be able to carry metal cooking-pots and water-containers. An astonishing feature of some of the Niah pottery—astonishing anyway to a student of these things—is the presence of three colours, applied as a sort of glaze. These colours appear to have been obtained by the use of different clays, charcoal and iron ore haematite. But this suggests an advanced kind of craftsmanship, which in fact has subsequently vanished; and which has so far not been found anywhere else, amongst stone-age people, in South-east Asia.

The haematite iron ore is another feature of the Niah stone age. Curiously enough, in widely separate parts of the world, (including Europe and America), primitive man discovered and used haematite to cover the corpses of the dead. In Niah this vivid scarlet and magenta haematite powder has been scattered in clouds over the cemetery.

The 1954 work was resumed and extended in 1957; and then, as already indicated, greatly extended in 1958. We also had the advantage of a visit to the cave of Professor G. H. R. von Koenigswald, who spent three weeks in Sarawak. Professor von Koenigswald was able to give valuable assistance in identifying Pleistocene mammal bone brought into the cave as the food of stone-age man, and in analysing the dentitions of the great range of human burials already exposed—and so far largely left *in situ*—in the caves. After he left this side of the work was carried on by Lord Medway, a zoology graduate from Cambridge who has since returned to England. Quantities of extremely interesting bone material obtained in 1958 are also being studied, from specialist angles, by Dr. Kenneth Oakley at the British Museum of Natural History; and by the Earl of Cranbrook, who is making a detailed examination of the ancient bat fauna represented in the Niah deposits.

The Niah excavations are not yet deep enough to find, under the extraordinary dry conditions there, any fossilised remains. Indeed, it is possible that in these particular cave conditions nothing did fossilise. The wide range of animals brought in to be eaten during forty millenia of stone-age include, however, a number of large animals no longer found within hundreds of miles of Niah; and one that appears to be extinct. A curious feature is the amount of remains of orang-utan, rhinoceros and very large pig, suggesting that these had been used for ritual, sacrificial or funerary purposes—or all three together—in ancient times.

More detailed study of the Niah stone tools, with the help of Dr. Oakley and Dr. T. T. Patterson, suggests some remarkable parallels between the palaeolithic (early stone-age) tools used in Sarawak and those of the so-called "Sohan" culture discovered by Dr. Patterson twenty years ago, thousands of miles away in north-west India. Papers discussing this and other significant Niah parallels were published during 1958 in *Nature*, *The Archaeological Newsletter*, the Royal Anthropological Institute's journal *Man* and elsewhere, and aroused wide-spread discussion and promises of increased support for the Niah project for 1959. Papers were also given during the year, at the Annual Meeting of the British Association in Glasgow, the Royal Geographical Society, a SEATO Cultural Conference at Bangkok and the Darwin-Wallace Centenary Congress at the University of Malaya, Singapore. A colour film of the Niah work made with Mr. Hugh Gibb has been shown on television all over the world (including U.S.A. and U.S.S.R.). A further colour-film was made with Mr. K. F. Wong in 1958 and has already been shown widely in South-east Asia.

Ceramic Age

Late in the 1958 "season" at Niah, important new finds were made in other caves and sub-caves, of later phases of cave frequentation. These are bronze and early iron age visitors, grave-diggers, cremators and looters, who have left a wealth of beautiful ceramics, great quantities of beads, jewellery (including jade and gold ornaments) and much else, with the dead of two thousand years ago. Such later, post stone-age remains barely occur in the main site and have still only been studied on a small scale. The Calouste Gulbenkian Foundation has now generously provided funds for a very thorough study of this rich and hitherto unsuspected side to Niah during 1959—when it will be more adequately reported upon.

It is already clear, however, that much of these later, metal age remains at Niah link closely to those already fairly extensively studied 300 miles to the south-west, in the Sarawak River delta and elsewhere. It seems probable that a main Chinese and other Asian trading station was established at the south-west corner of Sarawak and Borneo well beyond a thousand years ago. One of the principal purposes of an inter-monsoonal junk fleet visiting the west coast was barter trade both from the scattered area at Bau in the headwaters of the Sarawak River and further

north-east at Niah where, however, the coast, river and weather patterns are less suitable for long-term anchorage or large-scale permanent settlement by traders depending on long external routes under sail.

Fortunately, we already have extensive material from the Sarawak River Delta sites. As well as helping to interpret the later phases at Niah, this material is of much interest on its own account.

The Sarawak Museum started digging in the delta in 1952. Unlike cave sites, these open and usually swampy prehistoric situations are extremely difficult to pinpoint; and impossible to work in during the bad weather which characterises the *landas* months from October to April. Each summer since 1952 progressive digs have been carried on in the delta country, slowly extending westward along the great sweep of bay between Tanjong Po and Tanjong Datu, the south-west extremity of the island of Borneo. Altogether nearly forty probably significant prehistoric sites have now been located in this south-west sector. Of these, six have so far been excavated to some appreciable extent. These are:

- 1 Tanjong Kubur—a small headland half mile west of Santubong; a "proletarian" cemetery of the early T'ang Dynasty (618—?800 A.D.).
- 2 Tanjong Tegok—an "aristocratic" small cemetery on a small headland half mile east of Santubong; contemporary with Tanjong Kubur.
- 3 Bongkisam—flat land beside the river behind Santubong village, evidently a trading centre mainly in the Sung period (about 1,000 A.D.).
- 4 Sungei Ja'ong—two miles upriver from Bongkisam—a very extensive centre in the T'ang and perhaps early Sung eras; now embedded in the swamp through a prehistoric change in the course of the Sarawak River.
- 5 Sungei Buah—another river diversion site across river from Sungei Ja'ong and subsequent to it; including an impressive early iron foundry, the subject of particular excavation attention in 1958.
- 6 Bukit Maras—on the hillside above Bongkisam. This appears to have been inhabited by "Indian" people rather than Chinese types and special finds here include a fine 7th century stone buddha, a beautiful stone tile with a charging elephant, a tiny elephant in glass; gold, and fine beads.

The results of all this work are being gradually reported in the *Sarawak Museum Journal* (twice a year), which has printed more than 2,000 pages of original archaeological, anthropological, historical and natural history studies since publication was resumed in 1949. What was happening quite close to Kuching, in 979, naturally exercises particular fascination.

We cannot yet tell for certain what it was that these traders of a thousand years ago sought. But early Chinese annals put a high value on rhinoceros horn, hornbill ivory, edible bird's nests, gums and spices, as well as gold and precious stones, all here available.

Gold has long been worked in the area extending from Kuching south westward to Sambas and Montrado in West Borneo. Though the production of this area is insignificant in comparison with the present world output, it must, if Borneo gold was known in the days of the great Indian trading expedition, have been of considerable importance in the ancient world. The fabulous Golden Chersonese may well have included western Borneo.

It is likely that for a time Sarawak fell under the sway of the great maritime empire of Srivijaya, the Indian Buddhist theocracy centered on southern Sumatra, which reached its zenith towards the end of the twelfth century. Srivijaya fell about a century later before the attacks of Siam and the Hindu-Javanese kingdom of Majapahit, and Borneo came within the sphere of influence of the latter. The Majapahit empire in its turn began to crumble early in the fifteenth century before the Muslim States established by the advance of Islam into the archipelago. On these aspects, research continues.

After the fall of Majapahit, Sarawak formed part of the dominions of the Malay Sultan of Brunei, and it is first known to us by name through the visits of Brunei of Pigafetta in 1521, of Jorge de Menezes in 1526, of Gonsalvo Pereira in 1530, and from an early map of the East Indies by Mercator. Sarawak was then the name of a place on the river of the same name. Kuching did not exist.

Too little is still known about this period of Sarawak's proto-history where pre-history and written history overlap. But an important and attractive addition to our knowledge here was made during 1958. Back in 1940, Chinese coolies doing some

irrigation work near Sambas in Southern Borneo discovered a magnificent hoard of gold and silver buddhas. After a chequered career in Indonesia, Singapore and Holland, this "Sambas Treasure" was acquired for the British Museum with the assistance of the Sarawak Museum—whose help has been generously recognised by the presentation by the Trustees of the British Museum of two magnificent replicas for local display. In the stand of the largest of these buddhas a piece of leaf was found—during cleaning in the British Museum laboratories—containing an inscription in archaic Malay. This has not yet been interpreted and is being worked on by experts at present. It is the earliest such writing known from Borneo. The buddhas themselves relate to the one found at Santubong, in stone, already mentioned. They probably date from the 7th century onward, and are now a special exhibit in the British Museum Treasure Gallery in London.

II — HISTORY

The history of Sarawak as an intergral State begins with the first landing in August, 1839, of James Brooke. At that time Sarawak was the southern province of the Brunei Sultanate. The oppression of the Sultan's viceroy, Makota, had goaded into revolt the Malays and Land Dayaks resident in the area known as Sarawak Proper, and the Sultan had sent his uncle, the Rajah Muda Hassim, to pacify the country. The insurgents were led by Datu Patinggi Ali. James Brooke departed after a short stay and returned in 1840, to find the fighting still in progress. At the request of the Rajah Muda Hassim, he interceded in the dispute, brought about a settlement, and was rewarded for his services by being installed on the 24th September, 1841, as Rajah of the territory from Cape Datu to the Samarahan River. This, however is but a small part of the total area which was later contained within the State of Sarawak.

For the remaining twenty-three years of his life Rajah Brooke devoted himself to the suppression of piracy and head hunting, often with the help of ships of the Royal Navy, which performed almost incredible feats of navigation and endurance. It is a story of high adventure, financial difficulty, and political persecution at home by the Radical party, followed by complete vindication and success. Sarawak was recognised as an independent State by the United States of America in 1850, and Great Britain granted recognition in effect by appointing a British

Consul in 1864. In 1861 the territory of Sarawak was enlarged by the Sultan's cession of all the rivers and lands from the Sadong River to Kidurong Point.

Sir James Brooke, at his death in 1868, bequeathed to his nephew and successor, Charles Brooke, a country paternally governed, with a solid foundation of mutual trust and affection between ruler and ruled.

The first Rajah pioneered, subdued and pacified; Sir Charles Brooke, in a long region of fifty years, built with such conspicuous success upon the foundations laid by his uncle that piracy disappeared, head-hunting was greatly reduced and the prosperity of the country increased by leaps and bounds.

Further large accretions of territory occurred in 1882, when the frontier was advanced beyond the Baram River; in 1885 when the valley of the Trusan River was ceded; and in 1890, when the Limbang River region was annexed at the request of the inhabitants. In 1905 the Lawas River area was purchased from the British North Borneo Company with the consent of the British Government. British protection was accorded to Sarawak in 1888.

Between 1870 and 1917 the revenue rose from \$122,842 to \$1,705,292 and the expenditure from \$126,161 to \$1,359,746. The public debt was wiped out and a considerable surplus was built up. In 1870 imports were valued at \$1,494,241 and exports at \$1,328,963. In 1917 imports totalled \$4,999,320 and exports \$6,283,071. Roads had been constructed, piped water supplies laid down and a dry dock opened in Kuching. There were telephones, and the wireless telegraph was opened to international traffic.

The third Rajah, Sir Charles Vyner Brooke, succeeded his father in 1917, and progress continued in all spheres. Head-hunting, as a result of tireless efforts, was reduced to sporadic proportions, revenue increased, enhanced expenditure resulted in improved medical and educational services, and in 1941, the centenary year of Brooke rule, the State was in a sound economic position with a large sum of money in reserve. As a centenary gesture, the Rajah enacted a new constitution, which abrogated his absolute powers and set the feet of his people on the first stage of the road to democratic self-government.

Then came the Japanese invasion and occupation. Social services and communications were neglected; education ceased; health precautions were ignored; sickness and malnutrition spread

throughout the State. The people had been reduced to poverty and misery when, after the unconditional surrender of Japan, the Australian forces entered Kuching on 11th September, 1945.

For seven months Sarawak was administered by a British Military Administration, as a result of whose efforts supplies of essential commodities were distributed, the constabulary re-formed and the medical and educational services reorganised.

The Rajah resumed the administration of the State on the 15th April, 1946. It had, however, for some time been evident to him that greater resources and more technical and scientific experience than he then commanded were needed to restore to Sarawak even a semblance of her former prosperity. He therefore decided that the time had come to hand the country over to the care of the British Crown, and a Bill to this effect was introduced into the Council Negri in May, 1946 and passed by a small majority. By an Order-in-Council the State became a British Colony on the 1st July, 1946.

IV

SCIENCE AND THE ARTS

KNOWLEDGE of Sarawak's human and natural sciences advanced considerably during the year, especially in the fields of archaeology (already mentioned), anthropology, and ornithology.

Arts and Crafts

Special efforts were made during the year — and will be continued — to encourage and preserve native arts and crafts and to record folklore and customs before these disappear. It is something of a losing struggle, however.

Borneo has its own very vital arts and crafts. Inevitably these are threatened by the greatly accelerated and sometimes uncontrolled impact of Western civilisation. In particular, the influence of Government education and of Mission activities has very generally been to create with extreme rapidity a new set of values the significance of which is often imperfectly understood by the native peoples most affected. Ten years ago every young Kenyah, Kayan or Kelabit was proud of his leopard teeth ear-rings (if he was fortunate enough to possess them) and his tattoos. Today these fashions are in many areas being replaced by short hair, short trousers and skin clear of any design except vaccination.

The traditional systems of independent craftsmanship, of embroidered bark-jackets, fine beads, carved bone hairpins, ornate symbolic figures in wood, and decorated pipes, are threatened with early extinction. The old Ming jar and the Sung celadon plate, heirlooms of yesterday, are now shadowed by the refrigerator, the bicycle and the gramophone.

It is against this background that the thoughtful have to teach in the aesthetic field. There is nothing they can teach of carving, metal-working, design and weaving. The people do — or did — know it all uniquely. The young people no longer want it; better to buy cloth than make it, to use a \$2.00 parang knife instead of a finely wrought one from the Batang Kayan. On the

other hand, efforts to teach western art, painting in perspective, and such like, are not at this stage producing results. This is a fairly familiar dilemma where West teaches East so fast, and one that has seldom been solved at all effectively.

Further good work was done in the more limited field of "western" art, by the Kuching Art Club. The members are Chinese, Malay and European and they work in mixed styles not related to the Dayak aesthetic.

It has proved possible to relate the Art Club to the general interests of the Sarawak Museum in certain special ways. The Chairman of the Club, Mrs. Lucy Morison, kindly consented to become Honorary Curator of Art materials for the Museum; and a leading young Chinese artist, Paul Kuek, started work on an ambitious part-time project in which members of the Club will help redecorate Museum display cases and the Old Building.

The Sarawak Museum and Sarawak Culture

The Sarawak Museum continued energetically to collect both the material products of local artists and craftsmen of all races, and the verbal material of Sarawak legend and group history of pre-literacy. Particular attention was paid in 1958 to the Bisayans, a hitherto neglected but extremely interesting group centred in the Fifth Division and also numerous (under other names) in adjacent Brunei. Through the good offices of Dr. Roger Peranio, an American anthropologist working on the Limbang, a collection of Bisayan craftwork was made. At the end of the year Dr. Peranio brought Salong, one of the last scholars of ancient Bisaya folklore, to Kuching to record this lore for posterity.

Attention was also paid to the recording of Kenyah folklore from the inland parts of the Fourth Division. Considerable progress was made in tracing out the migrations of the Kenyah and Kayan peoples in the last century, before the advent of the Brookes in Sarawak, when most of these people still lived in what is now Indonesian Borneo. A further fascinating study, carried on as opportunity permits, is the translation into English of the several volumes of tradition, folklore, customs and vocabulary recorded in 1949, over several months, from the last of the once great and now extinct Seru peoples of the Kalaka District in the Second Division.

The Museum is slowly but steadily increasing as a focal centre for interest in and preservation of local craftsmanship,

custom and belief — in which Sarawakians, in common with Asians widely, are taking a growing and proper pride as the second half of the twentieth century develops its threat of atomic nonentity. The Museum itself was established by the Second Rajah, Sir Charles Brooke, in 1886. It is the only Museum in Borneo. Standing amidst beautiful gardens in Kuching, it has the best collection of Borneo arts and crafts in the world, and is a great attraction to visitors as well as to local peoples of all ages and races. About a quarter of the visitors are Dayaks, over a third Chinese, rather less Malays, the balance European and others. Unfortunately during most of 1958 it was necessary to close the Old Building which houses the main exhibition and display side of the Museum's work.

This Old Building had been in need of major renovation for some time and during the year extensive reconstruction was carried out by the Public Works Department. Among other things, a new roof was put on, the two end galleries re-made with air-conditioning and interior lighting, the whole redecorated. This naturally engaged a large part of the Museum staff's indoor energy over the year. Large-scale reorganisation and modernisation of exhibits in this Old Building are now in hand for the next phase.

The New Museum Building further down the hill was completed structurally in 1956 and internally in 1957. This provides greatly improved facilities for research workers and students, who are making ever better use of the opportunities.

During the year, the Fulbright Foundation of the United States recognised the improved Museum facilities and sent Dr. William Solheim, a distinguished archaeologist and expert on prehistoric pottery, to spend nine months working with Museum staff. He was the only Fulbright Fellow in South-east Asia during the year. Other specialists came from far afield, including Professor Tsing-Chao Maa, entomologist from Taiwan and Dr. Lindsay Gressitt of the Bernice P. Bishop Museum, Hawaii, engaged in the South Pacific Insect Survey; Lt.-Col. R. Traub of U.S. Army Medical Research; Dr. H. Wright, a research geologist of the Shell Company; and the usual succession of anthropologists, live-animal collectors, students of the Brooke family and free-lance travel writers feasting on our now considerably improved Reference Library of Borneo books and periodicals.

The Archives

Work has continued on a smaller scale to improve the archives. Other departments and outstations have shown an improved awareness of the benefits to be obtained by the community as a whole in passing these to the Museum for proper care, incorporation and indexing in the State Archives which are housed in the New Building.

Private publishers and newspapers still seem to find some difficulty, however, in understanding that under the Printers and Publishers Ordinance three copies of all printed material *must* be submitted to the Curator as soon as possible after publication. A test prosecution was therefore brought under that Ordinance, with good effect.

These Archives are becoming useful to the community. Moreover, they provided research material, during the year, to Sir Steven Runciman in the preparation of his official and forthcoming history of Sarawak; and to Dr. Conrad Cotter of Cornell University, New York, who spent two weeks in Kuching as part of a study of administrative methods in British Borneo.

The Photographic Archives have been further enriched by gifts from Mr. K. F. Wong, F.R.P.S. and Mr. Hugh Gibb, both of whom have also provided colour copies of valuable 16-mm documentary films dealing with Sarawak — which will undoubtedly be of great interest in the future, when much of what they record will be otherwise difficult to visualise or even imagine.

Other Scientific Studies

The full-length survey of Malay communities in Sarawak has been carried further during 1958. The first volume (about 250,000 words) of a four volume report is with the printers. This is the last of a series of "socio-economic" studies initiated with the aid of Colonial Development and Welfare Funds.

Already published are the studies of Land Dayaks (Dr. W. R. Geddes), Sea Dayaks (Dr. Derek Freeman), Melanaus (Dr. H. S. Morris) and Sarawak Chinese (Dr. T'ien). The Kelabits of the far interior are the subject of a long-term study separately by the Government Ethnologist; particular sections of this are published from time to time in the *Sarawak Museum Journal* and in periodicals abroad.

In October 1958 Dr. Rodney Needham visited Sarawak for the third time in connection with his study of the Penans of the

Fourth Division. No comprehensive results are expected to be published in the near future. Dr. Roger Peranio spent most of the year in an intensive study of Bisaya social structure and related problems in the Fifth Division; an initial paper on certain shamanistic beliefs is in preparation for the *Sarawak Museum Journal*. Dr. Derek Freeman of the Australian National University re-visited the Third Division Ibans and also published two papers of much interest, on Iban matters, in the *Museum Journal*.

There are now sixteen voluntary, part-time honorary Curators of the Museum, each with a special field. Notable contributions in advancing studies in these fields were made during the year by the Honorary Curators of Plants (Mr. John Seal), Birds (Mr. B. E. Smythies) (see Chapter V of Part III), Reptiles (Dr. N. S. Haile, who added several new species to the Borneo list), Photographs (Mr. K. F. Wong) and Ceramics (Mrs. B. Harrisson).

V

FLORA AND FAUNA

THIS chapter aims to give some general idea of the natural life of the country, as well as indicating special points of in 1958.

Apart from the coastal plains of swamp forest, Sarawak is dominated by mountains and hills, each altitude, with varied forms of plant and animal life, meeting to form a tangled mass over the whole interior. Between dusk and dawn, the jungle is alive with the noise of thousands of insects. There are more than six hundred kinds of birds, more than a hundred species of mammals. Everywhere there is vigorous life going on all the year round. There is no rest for fauna or flora; plants grow all the time, animals do not hibernate; activity has no end.

Flora

High temperatures with little variation coupled with an annual rainfall between 100 and 180 inches, make for an ever-present greenness. The old leaves fall after the new ones have grown. This greenness is made up of an enormous number of different kinds of plants with violently different characteristics and habits of growth. Epiphytic life is apparent wherever there are trees. Almost every tree supports other forms of plants, mostly ferns and orchids using the tree as host, but not "living off" the tree like parasites.

There are several hundred species of orchids, mostly living on trees, and not being horticultural wonders or difficult to cultivate. Many have most beautiful flowers ,and can be seen in gardens throughout the country. Some orchids, such as *phalaenopsis amabilis*, have leaves six inches or so long and an inflorescence of more than three feet with white and yellow flowers, and live on trees. Others have roots in the ground with the tip of the plant growing indefinitely, and aerial roots clinging to forest trees to support their climb to the roof of the forest, where they flower. Such a plant is *vanda Hookeriana*. Its natural

habitat is the swamp forest, but it is seen in many gardens, growing up and above four-foot posts and flowering continuously.

In the dry season from April to September some jungle trees bear edible fruit. One looks like the English chestnut with a centre tasting not unlike an avocado pear; another is the luscious durian, weighing two or three pounds and much loved by many people.

Beneath the great forest trees there are thousands of other plants: beautifully coloured small foliage plants, terrestrial and epiphytic ferns of all shapes and sizes, mosses, gingers of all sorts, and many others. In the clearings and along river banks there are flowering shrubs, with pink and yellow their dominating colours.

It is often supposed that the jungle contains a great number of parasitic plants. This is not so. There are a few parasites, of which the most important are members of the mistletoe family. The unusual and huge *Rafflesia* is a parasite. It has no stem or leaves. Only the flower is visible, with strands of tissue growing inside the living substance of its host, usually woody climbers of the vine family. There are three known species of *Rafflesia* in Malaysia. The largest, *Rafflesia Arnoldii*, has five petal-like organs and in the centre a basin-shaped cavity large enough to bathe a baby in.

Another unusual plant is the pitcher plant (*nepenthes*). These are climbers, usually in open country. They turn the tables on insects, especially ants, by snaring, drowning, and digesting them. This is one of the few circumstances in which a plant eats an insect, and gets its own back. Many species of *nepenthes* exist among the mountainous and lowland groups. Some have small pitchers of one inch and some large, of sixteen inches. The pitcher consists of body, rim and lid. Within the body a liquid is produced that digests the insects. The inner surface of the pitcher is slippery, and once an insect is attracted by the beautiful colours or the sugary secretions round the inside of the rim, it has little chance of escape.

A feature of Sarawak is the specialised flora of the moss forests with their dwarf vegetation. These occur in various parts of the country in mountain ranges above 3,000 feet. Layer upon layer of moss and dripping water abound, and the whole is in perpetual dampness.

During 1958 the herbarium, jointly run by the Sarawak Museum and the Forestry Department, was re-housed, re-arranged and largely added to. Plans are now in hand to establish a new herbarium building separately. This has become necessary owing to the rapid increase of the scale and value of the collections, and their direct relevance to developmental and other problems of Sarawak today — as well as their general scientific significance.

Fauna

Perhaps the most dramatic place and easiest way to see into the teeming life of the island is to step out of the jungle and go into one of the great caves which honeycomb for miles wherever there is an outcrop of limestone; at Mt. Mulu on the Tutoh; around Long Akah on the Baram; inland from Bintulu at Gunong Subis at Niah; and in many small hills behind Bau, above Kuching. Niah, already referred to, in Chapter III of Part II, as the classic Borneo stone-age site, is the largest, loveliest, and fullest of life. Its principal inhabitants are roughly 1,000,000 bats and 1,000,000 swiftlets. And when the bats go out and the swiftlets come home at dusk it is difficult even to control your mind to millions. It is hard to imagine there are so many of any one animal in the whole world, let alone one cave. The bats are of several kinds, some the size of a crow, others of a sparrow. Into the night they go to forage the air of the jungle. The swiftlets (of the genus *collocalia*) are probably of three kinds, have tiny bodies and scimitar wings. Their nests they make of saliva excreted from special glands. These are the birds' nests of soup fame, prime delicacy of the Chinese gourmet. They are exported in quantity, the best quality (pure saliva) fetching as much as £10 a pound.

These swiftlets, who take their food as tiny beetles in and over the jungle canopy, work for man in two ways. One end salivates the nests; the other gives droppings of beetle elytra, providing guano, a very useful local fertiliser; and they are but two of several thousand vertebrate (spined) living species in Sarawak — and as yet uncounted tens of thousands of insects, shells and so on.

Some of the more interesting forms include:

(i) *Mammals*

The most famous of Borneo animals is the "orang-utan" or *maias*, one of the very few close cousins of *homo sapiens*. It is found

only in Borneo and a small part of Sumatra. Despite constant persecution and inadequate protection, there are still *maias* in Sarawak, Indonesian Borneo and North Borneo. This charming, amiable, chestnut-furred animal, desired by zoos all over the world, can still be seen, shambling from tree to tree, inland in the First and Second Divisions. Another of the five great apes also occurs in Borneo, the gibbon or *wak-wak*, probably the most graceful of all arboreal animals. A favourite pet, it is in captivity very susceptible to pneumonic diseases.

The Sarawak Government is concerned at the smuggling of orang-utans across the border, where protection is less adequate. A number of babies — only to be obtained by assassinating the mother — were taken over by confiscation or prosecution during the year. The Game Warden normally passes these to the Sarawak Museum for special care in upbringing. When they are old and strong enough, the youngsters are then sent to approved zoos, unless it should prove possible to let them return to the wild (which is seldom the case).

Thus during 1958 orang-utans kept and restored to health for between six months and two years were sent to leading zoos in Sydney, Australia (through Sir Edward Hallstrom); West Berlin, Germany; and San Diego, U.S.A. At San Diego, "Bob" a three-year-old, has now become an American television star.

Over the past ten years quite a large small zoo had been built up behind the Museum, and aroused considerable public interest, especially among the young who seldom see most of Borneo's animals — which never leave the high jungle. This space was required in 1958 for the construction of a new Spirit House to keep the Museum's large bottled collection of reptiles, amphibians, fish, embryos, etc. under fireproof conditions — as part of the general reorganisation described in the previous chapter. As no other local body would take over the zoo at the time and no other Museum space was available, all the inmates not fit to be set free were presented to zoos in Australia and Europe. This loss has been felt by the public. There is a clear need for a separate zoo organisation, as a useful part of the cultural and educational background in Sarawak.

Sarawak is rich in mammals. The rhinoceros is dangerously near extinction, largely owing to persistent (now illegal) hunting by the Dayaks, who sell them to the Chinese. Wild cattle are

quite common in the northern part of the country; wild elephants are confined to North Borneo. Deer are very numerous; the *sambhur* deer or *rusa*, almost as big as a cow, is in some places a nuisance to rice farmers.

There is only one dangerous animal, the honey bear or *bruang*. The leopard can be large and magnificent, but the people of the island regard it as effeminate. The honey bear, if upset or with a family of young, will attack the unwary traveller. There are many stories of people clawed and even killed by angry honey bears. The baby bear is a great favourite as a pet, but as it nears maturity, it becomes dangerous.

Aquatic Mammals

Little has previously been known of the aquatic mammals living in the Sarawak coastal water of the South China Sea. In 1958 the studies of these groups continued.

The *dugong*, a shy and silent beast — superficially resembling but in no way related to a sea-lion — now appears to be confined to a small area on Tanjong Datu, where the population of Malay fishermen and Chinese hunters is very small. The whole local population numbers no more than a dozen, it seems.

The picture for cetaceans is brighter — much brighter than has hitherto been suspected. One year's careful observation has given good records of at least fourteen different forms present in these waters, most of them previously unsuspected. These include not only the well-known common dolphin, the ten-foot Bornean white dolphin, the small lead-grey Irawadi which comes well up the river, and the Little Finless Black Porpoises of the estuaries, which were fairly well-known before. New records include the Plumbeous Dolphin, a big one with a remarkably long beak; the very large Risso's; the Bottled Nosed (which turns out to be very common); and the small black one, living in the muddy waters of estuary mouths, which has not yet been positively identified and may be new to science, Dr. F. C. Fraser of the British Museum has also described a largish dolphin collected near Lutong which is entirely new and is to be called the Sarawak Dolphin (see *Sarawak Museum Journal*, December 1956).

In the 1956 report two whales were recorded from Sarawak waters, the first in decades, and including the very rare Bryde's Whale. At the end of 1957 a second Bryde's Whale, fourteen feet long, was stranded at Buntal and brought to the Museum by the

good efforts of the local fishermen. It looks as if this little known whale may really be resident in the South China Sea?

Even more extraordinary, in 1958 a specimen of the pigmy sperm whale was stranded on Sarawak shores, again at Buntal, which seems to have a fatal fascination for monsters out of the South China Sea. This whale is extraordinary in its shark-like teeth. It is extremely rare anywhere, and had not before been recorded in South-east Asia. To add to the interest of the record, when the Museum staff came to dissect the skeleton and skin, it was found that this was a pregnant female, containing a beautifully formed embryo, just a foot long. There are only six previous records of this whale's breeding habits and only three other embryos preserved — all from examples taken in European waters. With the help of Dr. Fraser, a report on this remarkable incident was published in *Nature* during 1958.

(ii) Birds

The important ornithological event of the year 1957 was the publication of B. E. Smythies' (Honorary Curator of Birds) *Checklist of Bornean Birds* as a special number of the *Museum Journal*. But there is still almost endless scope for work on the birds of this country, especially in the field. For instance, since the checklist had been closed, work on the Museum's collection discovered two new migrant records for Borneo, and, even in the few months since its publication, interesting records have been added to the known bird fauna of the island by Museum collectors and voluntary observers. The food, breeding and all bird behaviour in general, is still an important aspect of the Museum's general work, and an intensive study of the biology of the cave-nesting, birds'-nest-soup-yielding, swiftlets (*collocalia*) was under progress all the year.

There is to be found in Borneo one of the richest resident bird faunae in the world. There are several sorts of hornbill, notorious for their domesticity: the male walls the female into the nest, feeds her there and only liberates her when the young are ready to fly. Among a number of fine pheasants, the Argus is as handsome as a peacock. Its dancing grounds are stamped out of the mud so that several males can compete to the delight, or at least to the concern, of the females.

Sarawak has parrots, broadbills, ten kinds of pigeon, egrets, nearly twenty kinds of woodpeckers, exquisite honeyeaters and

flower-peckers, the lovely-voiced yellow crown bulbul, and so many other birds that it is doubtful if one man could ever learn to recognise them all on sight.

The finest of our seabirds is the great man-o'war or frigate bird. This does not nest on the coasts, but comes about the offshore inlands in hordes during the monsoon, circling, spiralling and gliding for hours in effortless grace upon the wind.

(ii) *Turtles and other Reptiles*

Sarawak's reptilian speciality is the big Green or Edible Turtle. Although this occurs elsewhere, only here do so many come up to lay, on three small beaches on islands off the coast (The Turtle Islands). Live turtles are protected. Only the eggs are collected, and a proportion are left to hatch out. Advances continued in experimental methods of rearing the baby turtles until they grow tough enough to evade most of their fish enemies. The study of turtle migrations and laying by marking females with tags was also continued.

These tagging experiments, the first of their kind anywhere, produced in 1957 their first positive results. Some 4,000 turtles were tagged with durable monometal numbered tags from 1953 to 1955. There were no long-term repeats until 1956. Then, on July 6, one marked on July 30, 1953, at last reappeared. By the end of July, fourteen repeats had been recorded: *all* turtles tagged in July and early August 1953. One lady, number B1544, has now been checked in by the staff of turtle watchers on Talang Talang Besar as laying over 1,000 eggs on eleven registered visits, five in 1953 and six in 1956.

In 1957 a series of turtles tagged in 1953 and 1954 returned to the islands once more. This same trend continued in 1958. No individual turtles have come up in *more* than one year since they were originally tagged. The evidence is now therefore strong that turtles spend periods of several years away from the islands without laying here in the interval. It is also extremely unlikely that they lay anywhere else than on the islands from which they are hatched. No turtle bearing a Sarawak Museum tag has been recovered laying in adjacent territories, such as the Natuna Islands and the Sulu Archipelago. Where these huge beasts spend their long holidays from reproduction remains a complete mystery. Nor is anything yet known of what happens to the baby turtles between the time they dash frantically down the beach into the

sea and swim with frenzied energy away and out of sight, to vanish from human knowledge anywhere, until they return, eight or more years later, to lay their eggs as adults and start the whole business all over again.

The results of this continuing study are of great importance to the turtle industry, as providing the first scientific information ever on laying habits and migrations. The experiments have aroused world-wide interest.

Sarawak has the most dangerous and deadly snake in the world, the hamadryad or king cobra. It can grow over fifteen feet in length, is quite common, and one of the very few reptiles in the world which will sometimes attack human beings.

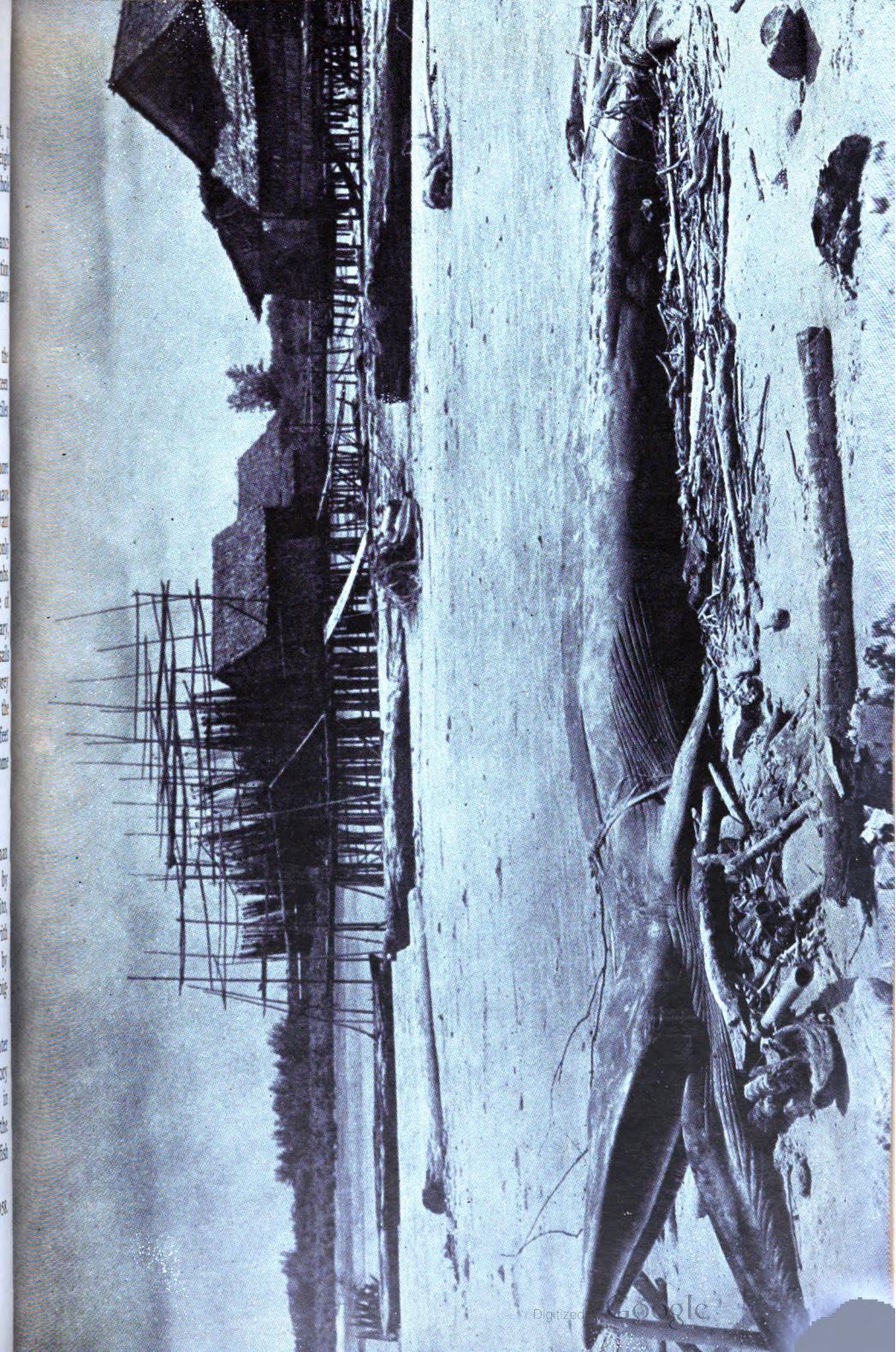
Lizards, of which there are nearly a hundred kinds, are more conspicuous, because of the attraction human dwellings have for some varieties such as the gecko or chichak. An observant person may sometimes see flying lizards, which actually only glide on membranes extended between the front and back limbs. Sarawak is rich in flying forms, its flying snake being one of most spectacular. The peculiar snake, which looks quite ordinary, can (when it wishes) extend its ribs to produce two lateral sails and glide for quite a distance. One, let go from the upper storey of the Sarawak Museum, went nearly fifty yards. Among the amphibians, there are flying frogs with small bodies and big feet upon which are suckers. There are also very large toads, some weighing several pounds.

(iv) Fish

Sarawak has an immense diversity of sea fish, more than 150 of which are known and named as of economic interest by Malay and Melanau fishermen of the coast. The barracuda, bonito, king-fish and horse mackerel are the only sporting fish met with regularly. The Museum has a very fine sail-fish obtained by fishermen in a net in Santubong some years ago. Otherwise, big-game fishing has not yet been proved feasible in these waters.

Hitherto, insufficient has been known about the fresh water fishes over much of the country. The Chicago Natural History Museum, which has already sent two expeditions to Sarawak in the past decade, has now made a considerable grant to the Sarawak Museum to enable some of the major gaps in fish knowledge to be filled. Work on this began in 1958.

A Brydes whale stranded in Buntal, First Division, in 1958.
(*Sarawak Museum*)





A Medical Department dresser, a Berawan, and his wife on their wedding day, at Long Tigan, in the Fourth Division. (*I.A.N. Urquhart*)

(v) *Spineless Animals (invertebrates)*

Numerous other illustrations of the country's wealth of animal and plant life can be produced: *molluscs* (shells), *crustaceans* (crabs, etc.), *arthropods* (spiders, etc.), and *nematodes* (worms). In the invertebrate section of spineless or boneless animals the variety of forms is immense. There are also many beautiful butterflies, the loveliest of which is the Rajah Brooke's Bird-wing (*ornithoptera*) which decorated the country's one cent stamp in the King George VI issue.

The great cave at Niah is, among its many other attributes, the only locality in the world recorded in scientific literature as the home of a strange earwig-like parasite called *arixenia esau*; as a result, very little is known of this insect. Following up a scientific paper published in the Royal Entomological Society's journal on the anatomy of this earwig and its related species, *arixenia jacobsoni* (known from Java and Malaya), observations were made on the habit and living conditions of *arixenia* in the cave. These have resolved several mysteries, and have shown, for instance, that the insect is genuinely parasitic — which had before only been conjectured — feeding on the surfaces of the hairless skin of the extraordinary naked bat. An African form of the same family (*hemimerus*) lives in the same way on the skin of a rat.

All animals brought to or collected by the Museum staff are examined for parasites. Identification and study of these is usually a business for experts and liaison is maintained with specialists in other institutes. In 1957 some of the interesting results of this work were the third world record (and the first outside South America) of round-worms in frigate birds, fleas from bats and biting lice (*mallophaga*) from swiftlets of what are apparently hitherto undescribed species.

VI

ADMINISTRATION

SARAWAK is divided for administrative purposes into five Divisions, each in charge of a Resident.

These Divisions are

- the First Division, with headquarters at Kuching;
- the Second Division, with headquarters at Simanggang;
- the Third Division, with headquarters at Sibu;
- the Fourth Division, with headquarters at Miri;
- the Fifth Division, with headquarters at Limbang.

Each Division is sub-divided into a number of Districts, administered by District Officers, and most of the Districts into smaller areas or sub-districts each in charge of a member of the Native Officers Service. The District Officers are advised by District Advisory Councils and sometimes Chinese Advisory Boards set up in each District, whilst Residents have the benefit of the advice of Divisional Advisory Councils which meet at frequent intervals at Divisional Headquarters. As far as is practicable, Government attempts to free Residents and District Officers from as much office work as is possible in order that they may tour their areas and maintain the close contact with the people which has always been the keynote of administration.

Progress in local government continued in 1958. Before the war the Native Administration Order was published as an enabling Ordinance to allow the gradual introduction of the people themselves into the administration of their own affairs. This Order contemplated the setting up of village committees to replace the individual chiefs, but the first experiment on these lines did not get very far owing to the outbreak of war and the impossibility of providing adequate supervision. In 1947 a scheme was drawn up for the development of Local Government through local authorities with their own treasuries. The Local Authority Ordinance, 1948, forms the basis for the powers of these Authorities, and their revenues are made up of direct taxes,

fines, and fees, supplemented by a grant from the central Government calculated according to the number of tax-payers.

Most of the authorities first constituted were established on a racial basis, but this proved to be an unsound foundation, and the pattern on which they are now organised is the Mixed, or Inter-racial, Authority, with jurisdiction over people of all races in the area. As from the beginning of the year 1957 the whole population of the country, about 600,000 was under the jurisdiction of local authorities except for an area, on the north-east coast between Miri and the Brunei border containing now about 5,000 people, the inclusion of whom in an area administered by a local authority has so far not been possible. All local authorities have a dual function: local government within the limits defined in the Local Authority Ordinance and, as electoral colleges, the election of representatives to Divisional Advisory Councils, which in turn elect members of the Council Negri. In this electoral function three urban councils also elect one representative each direct to the Council Negri. Local authorities are themselves constituted by election.

Through the kind offices of the British Council and their Sarawak Representative, Mr. Harold Bedale, O.B.E., the Town Clerk of Hornsey in North London was enabled to pay a short but extensive visit to Sarawak in February and March. Mr. Bedale saw all the types of local authority and produced a very valuable handbook on the essential duties of authorities and their members. The book has been translated into Malay and Chinese and copies have been sent to all authorities. A Dayak version is in hand.

In 1941, to commemorate the centenary of Brooke rule, His Highness the Rajah granted a Constitution, and in 1946, when Sarawak became a Crown Colony, the Supreme Council and the Council Negri retained the authority granted to them in that Constitution. This gave legislative and financial jurisdiction to the Council Negri, a body of twenty members of whom fourteen were official members appointed from the Sarawak Civil Service and eleven unofficial, representative of the several peoples of the country and their interests. In addition, there were certain Standing Members—natives of Sarawak who had been members of the Council Negri immediately before the enactment of the new Constitution Ordinance. The Council had the power to make laws for the peace, order and good government of the

country, and no public money could be expended or any charge made upon the revenues of the country without the Council's consent. The Constitution also provided for a Supreme Council of not less than five members, of whom a majority should be members of Sarawak Civil Service and of the Council Negri.

All powers conferred upon the Rajah or the Rajah-in-Council by any written law enacted before the date of operation of the Cession of Sarawak to His Majesty were vested in the Governor-in-Council. In the exercise of his powers and duties the Governor consulted with the Supreme Council, except in making appointments to the Supreme Council and in cases

(a) of such nature that, in the Governor's judgment, Her Majesty would sustain material prejudice by consulting the Supreme Council thereon; or (b) of matters in his judgment too unimportant to require their advice; or (c) of matters in his judgment too urgent to admit of their advice being given by the time action might be necessary.

In August 1956 an Order-in-Council was made and Letters Patent and Royal Instructions were promulgated which between them contained a new Constitution for Sarawak. It provides for a new legislative body consisting of forty-five members of whom twenty-four are elected unofficials, fourteen are *ex-officio*, four nominated to represent interests which the Governor considers inadequately represented, and the remaining three are standing members. The new Supreme or Executive Council consists of three *ex-officio* members, namely the Chief Secretary, the Financial Secretary and the Attorney-General, two nominated members and five elected members who are elected, nominated or standing members of the Legislative Council. Councils representing the five Administrative Divisions of Sarawak, or Divisional Advisory Councils, as they are designated, elect twenty-one of the twenty-four unofficial members, and the remaining three members are elected by the Kuching Municipal Council, the Sibu Urban District Council and the Miri Urban District Council. To qualify for election as an unofficial member a person must be, amongst other things, over twenty-one years of age and a British subject or a British protected person, and must, with certain exceptions, have resided for at least seven out of the last ten years in Sarawak. This Constitution came into force on 1st April, 1957, the day appointed by His Excellency the Governor for this purpose.

VII

WEIGHTS AND MEASURES

THE standard weights and measures recognised under the Laws of Sarawak are the Imperial yard, the Imperial pound and the Imperial gallon.

Certain local customary weights and measures having the values set out below are also lawful:

1 Tahil	=	1½ ozs
1 Kati (16 tahils)	=	1⅓ lbs
1 Picul (100 katis)	=	133⅓ lbs
1 Koyan (40 pikuls)	=	5333⅓ lbs
1 Chhun	=	1.19/40 inches
10 Chhuns	=	1 Chhek = 14¾ inches
1 Panchang	=	108 stack cubic feet

VIII

NEWSPAPERS AND PERIODICALS

KUCHING

	<i>Founded</i>
<i>Sarawak Gazette</i> (monthly : English)	1870
<i>Sarawak Museum Journal</i> (twice yearly : English)	1911
<i>Sarawak Tribune</i> (daily : English)	1945
<i>Chinese Daily News</i> (daily : Chinese)	1945
<i>Utusan Sarawak</i> (tri-weekly : Malay)	1949
<i>Pedoman Ra'ayat</i> (monthly : Malay)	1950
<i>Pembrita</i> (monthly : Iban)	1950
<i>Sarawak Vanguard</i> (daily : Chinese)	1952
<i>Co-operation in Sarawak</i> (quarterly : English—Malay—Chinese—Iban)	1952
<i>Radio Times of Sarawak</i> (fortnightly : English—Malay—Chinese—Iban)	1955
<i>Sin Wen Pau</i> (daily : Chinese)	1956
<i>Sarawak by the Week</i> (weekly : English)	1956
<i>Sarawak Dalam Sa-minggu</i> (weekly : Malay)	1957
<i>Sarawak Times</i> (Daily : Chinese)	1958

SIBU

<i>Ta Tung Daily News</i> (daily : Chinese)	1945
<i>Sie Hwa Daily News</i> (daily : Chinese)	1945
<i>Yueh Sheng Pau</i> (daily : Chinese)	1958

MIRI

<i>Miri Daily</i> (Chinese)	1957
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IX

BIBLIOGRAPHY

OFFICIAL PUBLICATIONS

GENERAL

The Colonial Office List
The Sarawak Civil Service List
The Sarawak Government Gazette
The Proceedings of Council Negri
Handbook of Sarawak (1949)
The Annual Reports on Sarawak (1946-1958)

SPECIAL STUDIES

The Sarawak Museum Journal (twice yearly) (Kuching: Government Printing Office)
The Natural Resources of Sarawak (Second Edition 1952) (Kuching: Government Printing Office)
The Annual Reports of the Geological Survey Department (1949-1957) (Kuching: Government Printing Office)
A Report on the 1947 Population Census—J. L. Noakes (London: Crown Agents for the Overseas Territories; Kuching: Government Printing Office, 1950)
Sarawak Papers: the Scientific Results of the Oxford University Expedition to Sarawak in 1932 (London: Oxford University Press, 1952)
Forest Trees of Sarawak and Brunei—F. G. Browne. (Kuching: Government Printing Office, 1955)
Fiscal Survey Report of Sarawak—Professor T. H. Silcock. (Kuching: Government Printing Office, 1956)
Report of the Commission on the Public Services of the Governments of Sarawak, North Borneo and Brunei. (Kuching: Government Printing Office, 1956)
Sarawak: Political and Economic Background. Royal Institute of International Affairs, Chatham House (London: Oxford University Press, 1957).

Annual Reports of the Geological Survey Department (1949-1958)
(Kuching: Government Printing Office)

Geological Memoirs: (the four following memoirs, relating to Sarawak, form part of a large series of memoirs, reprints, and maps produced by the Geological Survey Office):

Memoir 1. *The Geology and Mineral Resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal,* by N. S. Haile. (Kuching: Government Printing Office, 1954)

Memoir 3. *The Geology and Mineral Resources of the Kuching—Lundu Area, West Sarawak, including the Bau Mining District,* by G. E. Wilford. (Kuching: Government Printing Office, 1955)

Memoir 7. *The Geology and Mineral Resources of the Lupar and Saribas Valleys, West Sarawak,* by N. S. Haile. (Kuching: Government Printing Office, 1957)

Memoir 8. *The Geology and Mineral Resources of the upper Rejang and adjacent areas,* by H. J. C. Kirk. (Kuching: Government Printing Office, 1958).

BOOKS

GENERAL

The Expedition to Borneo of H.M.S. Dido for the Suppression of Piracy (containing extracts from the journals of Sir James Brooke, the first Rajah)—Captain H. Keppel, R.N. (1846)

Sarawak—Hugh Low (1848)

Rajah's Brooke's Journals (the first Rajah)—Captain Mundy, R.N. (1948)

Life in the Forests of the Far East—Spenser St. John (1863)

Ten Years in Sarawak—Sir Charles Brooke (the second Rajah) (1866)

The Rajah of Sarawak—(the first Rajah)—Jacob (1876)

Natives of Sarawak and British North Borneo—Ling Roth (1896)

The Life of Sir James Brooke—Spenser St. John (1899)

Sarawak under its Two White Rajahs—S. Baring-Gould and C. A. Bampfylde (1909).

Seventeen Years among the Sea Dayaks of Borneo—Gomes (1911)

The Pagan Tribes of Borneo—Hose and McDougall (1912)

My Life in Sarawak—Margaret, Ranee of Sarawak (1913)
Borneo, the Land of River and Palm—Eda Green (1919)
Sarawak (a handbook written for the Malayan-Borneo Exhibition, Singapore, 1922)—Sylvia, Ranee of Sarawak
Letters from Sarawak—Harriette McDougall, wife of Francis McDougall, first Bishop of Labuan (1924)
Rajah Brooke and Baroness Burdett-Coutts (Letters)—Owen Rutter (1936)
Bornean Jungle—Tom Harrisson (1938)
The Three White Rajahs—Sylvia, Ranee of Sarawak (1938)
James Brooke of Sarawak—Emily Hahn (1953)
Angela Burdett-Coutts and the Victorians—Clara Burdett Patterson (London: John Murray, 1953)
Wings of the Morning—The Ven. Arthur F. Sharpe (London: Greaves, 1954)
Sarawak and Its Government—Hugh Hickling—(Kuching: Government Printing Office, 1954)
Outlines of Sarawak History—1939-1946—A. C. Ward and D. C. White—(Kuching: Government Printing Office, 1954)
Sarawak and Its People—M. G. Dickson—(Kuching: Government Printing Office, 1954: reprinted 1956)
Borneo People—Rt. Hon. Malcolm MacDonald, P.C. (London, Jonathan Cape, 1956)
The Borneo Story—Henry Longhurst—(London, Newman Neame, 1956)
Sarawak—Hedda Morrison—(London, MacGibbon and Kee, 1957)
Nine Dayak Nights—W. R. Geddes—(Melbourne: Oxford University Press, 1957).
Longhouse and Jungle—Guy Arnold (Chatto and Windus, 1959).
World Within—Tom Harrisson (Cresset Press, 1959).

SPECIAL STUDIES

Iban or Sea Dayak Fabrics and their Patterns—Alfred C. Haddon and Laura E. Stark (Cambridge University Press, 1936)
A Naturalist in Sarawak—E. Banks (Kuching Press, 1949)
Bornean Mammals—E. Banks (Kuching Press, 1949)
Social Science Research in Sarawak—E. R. Leach (His Majesty's Stationery Office, 1950)

The Chinese of Sarawak—Ju K'an T'ien (London School of Economics, 1953)

Report on a Melanau Sago Producing Community in Sarawak—H. S. Morris (Her Majesty's Stationery Office, 1953)

The Land Dayaks of Sarawak—W. R. Geddes—(Her Majesty's Stationery Office, 1954)

Nineteenth-Century Borneo: A Study in Diplomatic Rivalry—Graham Irwin—(Singapore: Donald Moore, 1955)

Report on the Iban of Sarawak—J. D. Freeman—(Kuching: Government Printing Office, 1955)

Iban Agriculture—J. D. Freeman (Her Majesty's Stationery Office, 1955)

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APPENDIX A
COLONIAL DEVELOPMENT AND WELFARE SCHEMES — SARAWAK ALLOCATION

Scheme Number	Title of Scheme	Total Grant	Actual expenditure to 31.12.58	Estimated expenditure 1959	Balance of Scheme
AGRICULTURE					
D. 816 and D. 816A	Agriculture Soil Survey	\$ 102,575	† 102,575	—	Completed
D. 826	Rubber Improvement (extension)	\$ 64,617	† 64,617	—	Completed
D. 954	Cultivation of Cash Crops	\$ 100,960	† 100,960	—	Completed
D. 968	Visit of Malayan Irrigation Engineer	\$ 1934	1,934	—	Completed
D. 973 and D. 973A	Experiments in Mechanical Cultivation	\$ 82,709	† 82,709	—	Completed
D. 1208 and D. 1208B	Rice Cultivation—Payá Megok	\$ 493,192	485,061	8,131	Completed
D. 1424	Cocoa Seed Production Station	\$ 15,135	15,135	—	Completed
D. 1519	Department of Agriculture Staff Training School	\$ 99,755	99,755	—	Completed
D. 1664	Farm Mechanisation	\$ 153,350	† 153,350	300	Completed
D. 2080	Rice Cultivation Niah/Sibuti	\$ 80,362	† 80,062	—	Completed
D. 2233	Rice Investigation (Pot Culture Experiments)	\$ 3,025	3,025	—	Scheme abandoned
D. 2311 and D. 2311A	Rice Investigation (Wet Padi Land Surveys)	\$ 270,000	270,000	—	Completed
D. 3138 and D. 3138A	Soils Laboratory Organisation	\$ 166,928	159,006	7,922	Completed
D. 2832	BROADCASTING	\$ 327,428	327,428	—	Completed
CIVIL AVIATION					
D. 913A-B	Kuching Airport (Supplementary)	\$ 291,432	291,432	—	Completed
D. 1542 and D. 1542A	Sibu Airfield	\$ 180,000	180,000	—	Completed
D. 1923	Sibu Airfield—Buildings	\$ 275,079	275,079	—	Completed

D. 838	Rural Improvement School, Kanowit ...	248,092	£ 248,092	—	—	Completed
D. 839 and D. 839A	Batu Lintang Teacher Training Centre and School ...	544,607	£ 544,607	—	—	Completed
D. 1871	Grants for Domestic Science Rooms ...	80,000	59,458	20,542	—	
D. 1875 and D. 2783	Grants for Science Laboratories Batu Lintang Training College Permanent Buildings ...	225,000	139,113	50,080	35,807	
D. 3692		1,875,000	—	562,500	1,312,500	
	FISHERIES					
D. 821	Training of Fishery Survey	2,316	2,316	—	—	Completed
D. 837 and D. 837A	Fisheries Survey*	69,995	£ 69,995	—	—	Completed
	FORESTRY					
D. 1120	Forestry Development (1.1.50-31.12.55)	... 339,521	339,521	—	—	Scheme closed on 31.12.55 & continued under scheme D.2791
D. 2791	Forestry Development (1.1.56-31.12.59)	363,428	249,518	—	113,910	Scheme con- tinued under Recurrent Budget (Part D) from 1.1.58
	GOVERNMENT BUILDINGS					
D. 1430 and D. 1430A	Senior Service Quarters	217,383	217,383	—	—	Completed
	MEDICAL					
D. 830	Travelling Dispensaries	638,419	£ 638,419	—	—	Completed
D. 2442	Mental Hospital	1,500,000	1,500,000	—	—	Completed

* Net expenditure after deducting revenue earned by scheme.
 • Scheme completed before commencement of Development Plan.

APPENDIX A—(contd.)
COLONIAL DEVELOPMENT AND WELFARE SCHEME — SARAWAK ALLOCATION

Scheme Number	Title of Scheme	Total Grant	Actual expenditure to 31.12.58	Estimated expenditure 1959	Balance of Scheme	
	PORT DEVELOPMENT	\$	\$	\$	\$	
D. 1273	Test Bores, Rejang and Kuching Rivers	75,559	75,559	—	—	Completed
D. 3550	Wharf and River walls, Kuching Port Development	2,442,000	984,536	1,295,916	161,548	
	ROADS AND BRIDGES					
D. 944	Secondary Roads and Telecommunications	98,911	98,911	—	—	
D. 1076 and D. 1076A-E	Road Development Scheme	2,098,151	2,097,756	—	395	Completed
D. 3124	Serian Simanggang Road	7,005,000	3,299,678	2,995,000	710,322	
	CWD SCHEMES — JOINT BORNEO ALLOCATION					
D. 823	Coal Investigation	...†	92,143	92,143	—	—
D. 804 and 804A-D	Sarawak Population	...	...	—	—	Completed
	Census and Printing of Census Tables*	...	...	223,902	223,902	—
D. 913	Kuching Airport	...	...	411,428	411,428	—
D. 1828	Central Mental Hospital	...	...	15,106	15,106	Scheme abandoned

† 50% of total grant, scheme administered by North Borneo Government.
 * Scheme completed before commencement of Development Plan.

APPENDIX A—(contd.)
CDW SCHEME — CENTRAL ALLOCATION

Scheme Number	Title of Scheme	Total Grant	Actual expenditure to 31.12.58	Estimated expenditure 1959	Balance of Scheme
D. 1109 and D. 1109A D. 1109B	Combined Geological Survey ... Combined Geological Survey ...	\$ 844,352 325,500	\$ 844,352 325,113	\$ — —	\$ — 387
D. 1191 (i) D. 3021	Combined Geological Survey ... Combined Geological Survey ...	5,047 565,714	5,047 432,869	\$ 55,678	\$ 77,167
D. 1749	Broadcasting Service ...	405,536	405,536	\$ —	\$ —
D. 1692	Meteorological Service ...	197,990	181,753	\$ —	\$ 16,237
D. 1117 and D. 1117A-E	Aeronautical Telecommunication Equipment, Sibu Airfield ...	402,000	392,066	\$ —	\$ 9,934
D. 1924	Aeronautical Telecommunication Equipment, Sibu Airfield ...	81,000	47,132	\$ —	\$ —
D. 2502	Aeroadio Equipment for Lutong and Bintulu Airfields ...	16,500	13,275	\$ —	\$ 3,225
R. 209 and R. 209A R. 207 and R. 207A-G	Fisheries Survey* ... Sociological Research (Melanau Iban, Land Dayak and Chinese projects) ... Sociological Research (Malay project) ... Pepper Disease Investigations ...	69,995	69,995	\$ —	\$ —
R. 483	Soils Laboratory Organisation ...	93,266	88,704	\$ —	\$ 4,562
R. 618A, B and C	Pepper Disease Investigations ...	6,000	5,917	\$ —	\$ 83
R. 848 and A	Soils Laboratory Organisation ...	93,196	92,479	\$ —	\$ 717
	TOTAL CENTRAL ALLOCATION	264,000	223,691	\$ 3,500	\$ 36,809
		3,370,096	3,127,929	\$ 9,178	\$ 182,989

*Saving on scheme. †Net expenditure after deducting revenue earned by scheme.

*Completed before commencement of Development Plan.

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
AGRICULTURE				
Agricultural Credit—Loan to Co-operative Central Bank	250,000	250,000	—	—
Central Bank	4,970	4,970	—	Completed
Fertiliser Manufacture Experiments	300,000	—	200,000	Completed
Agricultural Extension, Buildings	369,187	294,975	10,000	100,000
Development of Farm Mechanisation	101,330	75,510	5,000	64,212
Animal Husbandry—Purchase of Livestock	164,360	87,528	76,832	20,820
Veterinary Clinics	—	—	8,500	—
Quarantine Stations	20,000	—	—	11,500
Pepper Disease Investigations	136,002	123,136	* 10,000	2,866
				*Capital Expenditure only. Recurrent Expenditure transferred to Part I from 1.158.
Pepper Processing Plant	600,000	—	250,000	350,000
Coconut Planting Scheme	1,425,000	11,757	100,000	1,313,243
Research	420,000	—	52,000	368,000
Rice Cultivation—Paya Megok	107,725	104,228	—	3,497
Rice Cultivation—Niah/Sibuti	80,234	80,234	—	—
Rice Investigation (Bijat and Pujut Lopeng)	9,969	9,969	—	Completed
Rice Investigation (Wet Padi Land Surveys)	1,500	1,157	—	Completed
Rice Cultivation (Assistance to padi planters)	250,000	—	50,000	Completed
Rubber Planting	17,156,015	3,397,744	3,497,843	200,000
Rubber Research	1,000,000	500,000	100,000	10,260,428
Rural Agricultural Education	170,000	17,029	75,000	400,000
Sago Industry	7,668	7,668	—	77,971
Soils Laboratory Organisation	166,929	159,006	—	—
	(22,740,889)	(5,124,911)	(4,435,175)	(13,180,803)

BROADCASTING						
Establishment of Broadcasting Service ...	515,946	515,946	—	—	—	Completed
Extension of Broadcasting Service ...	518,562	515,799	—	—	—	Completed
	(1,034,508)	(1,031,745)				
CIVIL AVIATION						
Kuching Airport—Turfing, anti-erosion and Sub-soil drainage ...	77,493	77,493	—	—	—	Completed
Sematan Airfield ...	20,000	17,913	—	—	2,087	Completed
Simanggang Airfield ...	355,600	355,347	—	—	2,53	Completed
Sibu Airfield ...	151,346	151,346	—	—	—	Completed
Sibu Airfield Extension ...	400,000	171,630	154,379	73,991	—	Completed
Mukah Airfield ...	84,711	84,056	—	655	—	Completed
Belaga Airfield ...	100,000	83,432	14,000	2,568	—	Completed
Bintulu Airfield—Reconstruction ...	165,453	165,453	—	—	—	Completed
Ulu Airstrips ...	50,000	32,254	—	—	17,746	Completed
Marudi Airfield ...	78,300	57,574	—	—	20,726	Completed
Lawas Airfield ...	45,000	35,206	—	—	9,794	Completed
Air Services Development ...	1,000,000	727,552	193,512	78,936	—	Completed
Lutong Airfield—Building ...	18,842	18,842	—	—	—	Completed
Airport Equipment, Fire-Fighting (Kuching and Sibu) ...	127,406	127,406	—	—	—	Completed
Airport Equipment, Fire-Fighting (Simanggang, Mukah, Marudi) etc. ...	100,964	83,902	1,400	15,662	—	Completed
Internal Air Service (Lutong) ...	3,992	3,992	—	—	—	Completed
Internal Air Service (Acquisition of sites) ...	28,000	28,000	—	—	—	Completed
Subsoil drains—Kuching Airport ...	60,722	60,722	—	—	—	Completed
Access Road to Kuching Airport ...	37,000	—	37,000	—	—	Completed
	66,918	66,918	(2,971,747)	(2,349,038)	(400,291)	(222,418)
COMMUNITY DEVELOPMENT						
Henghua Fishermen's Housing Scheme, Kuching ...	152,190	152,190	—	—	—	Completed
Muara Tuang Scheme, First Division ...	27,399	27,399	—	—	—	Completed
Padawan Scheme, First Division ...	179,948	80,353	37,180	62,415	—	Completed
Budu Scheme, Second Division ...	284,053	213,664	40,520	29,869	—	Completed
Entabai Scheme, Third Division ...	264,617	93,363	62,866	108,388	—	Completed
Ioan Teams Project, Third Division ...	186,665	—	19,390	167,075	—	Completed
Long Lama Scheme, Fourth Division ...	191,886	106,487	36,538	48,861	—	Completed
Rural Homecraft Instructors ...	25,100	10,536	14,544	—	—	Completed

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(contd.)

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
Contribution to Sarawak Council for Adult Education	\$ 36,462	\$ 36,462	\$ —	\$ — } Transferred to Part I from 1.1.58
Community Development staff	\$ 63,705	\$ 63,705	\$ —	\$ — }
U.K. Volunteers Project	\$ 25,650	\$ 4,327	\$ 19,800	\$ 1,523
Training	\$ 6,560	\$ —	\$ 6,560	\$ (418,131)
	(1,444,235)	(788,506)	(237,598)	
EDUCATION				
Rural Improvement School, Kanowit ...	\$ 194,713	\$ 194,713	\$ —	Completed
Rural Improvement School, Kanowit-Buildings	\$ 179,994	\$ 197,994	\$ —	Completed
Batu Lintang Teacher Training Centre and School	\$ 150,430	\$ 150,430	\$ —	Transferred to recurrent budget from 1.1.54
Local Scholarships	\$ 158,501	\$ 158,501	\$ —	Transferred to recurrent budget (Part I) from 1.1.58
				"
Overseas Scholarships and In-Service Production of Vernacular Literature ...	\$ 2,303,852	\$ 1,786,207	\$ 450,000	\$ 67,645
Trade and Technical Education ...	\$ 3,187	\$ 3,187	\$ —	\$ 750,000
Batu Lintang Training Centre—Permanent Buildings	\$ 750,446	\$ 446	\$ —	\$ 436,767
Commercial Courses	\$ 625,000	\$ 733	\$ 10,000	\$ 6,637
Library Establishment	\$ 20,000	\$ 3,363	\$ 185,278	\$ 64,722
Government Secondary Schools ...	\$ 5,000,000	\$ 2,034,394	\$ 628,000	\$ 2,337,606
Chinese Teacher Training ...	\$ 600,000	\$ 456,822	\$ 9,000	\$ 134,178
Group Headmaster Scheme ...	\$ 327,000	\$ 32,437	\$ 45,000	\$ 249,563
Capital Grants to Education Agencies ...	\$ 4,500,000	\$ 1,831,738	\$ 1,000,000	\$ 1,668,262

Loans to Agencies and Local Authorities (Recoverable)	... ...	... ...	243,000	150,000	357,000
Publications Bureau	... ...	... ...	—	100,000	321,000
Lutong School	... ...	... ...	76,531	—	11,469
			(7,337,774)	(2,579,500)	(6,404,849)
FISHERIES					
Marine Fisheries Research Station, Singapore	... ...	... ...	26,734	24,434	—
Fishery Development	... ...	... ...	315,799	297,901	10,448
Freshwater Fisheries	... ...	... ...	67,000	10,620	51,580
Inboard Engines for Local Fishing Craft	... ...	... ...	52,900	49,937	2,963
Fisheries Survey	... ...	... ...	12,857	12,857	—
			(475,290)	(395,749)	(64,991)
FORESTRY					
Grant towards establishment of National Park	... ...	... ...	49,998	49,998	—
Forestry Development	... ...	... ...	53,645	53,645	—
Timber Plantations	... ...	... ...	81,115 (184,758)	(103,643) —	(81,115) (81,115)
FUEL AND POWER					
Electricity Supplies	... ...	... ...	10,875,200	8,175,200	1,200,000
Electricity Supplies, Lundu (Loan to Lundu District Council)	... ...	... ...	42,300	42,300	—
Electricity Supplies, Kuching	... ...	... ...	46,500	46,500	—
			(10,964,000)	(8,264,000)	(1,200,000)
GEOLOGICAL SURVEY					
Combined Geological Survey (D.1109B)	... ...	... ...	325,113	325,113	—
Combined Geological Survey (Scheme D.3021)	... ...	... ...	239,236 (564,349)	239,236 (564,349)	(—) (—)

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(contd.)

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
GOVERNMENT BUILDINGS				
High Court Air-conditioning, Sibu	16,000	14,130	—	1,870
New Post Office, Sibu	200,000	—	50,000	150,000
New Government Office, Tatau	30,000	29,761	—	239
New Government Office, Sundar	27,000	26,755	—	245
New Court House, Limbang	20,000	19,960	—	40
Rehabilitation of Lundu Station	345,412	345,412	—	Completed
New Government Office, Kuching	1,135,655	1,135,655	—	Completed
Extension of Government Office, Simanggang	57,687	57,687	—	Completed
New District Office, Lawas	47,679	47,679	—	Completed
P.W.D. Garage, Kuching	276,698	276,698	—	Completed
P.W.D. Depot (First and Second Divisions)	240,661	240,661	—	Completed
P.W.D. Depots (Simanggang, Sarikei, Miri and Limbang)	500,000	81,538	375,743	42,719
Miri Government Office, Extension	57,000	47,295	—	9,705
Extensions and improvements, Government Offices, Kuching	1,329,500	85,841	459,000	784,659
Information Office	165,000 (4,448,292)	24,332 (2,433,404)	125,000 (1,009,743)	15,668 (1,005,145)
HOUSING				
Miri Housing Scheme	... ... ... ... ...	920,507	912,411	8,096
Kuching Housing Scheme	... ... ... ...	3,850,000	3,850,000	—
Civil Servants' Housing Loan	3,170,000	1,524,036	500,000	1,145,964
Investment in New Building Society	500,000 (8,440,507)	—	250,000 (750,000)	250,000 (1,404,060)

LAND						
<i>Drainage and Irrigation:—</i>						
Samarahan Estate ...	... ..	166,294	66,294	50,000	50,000	
Preliminary Surveys ...	... ..	20,000	—	20,000	—	
River Clearance Work ...	... ..	9,800	—	9,800	—	
Land Utilisation and Development Purposes ...	... ..	1,894,155	455,489	72,842	1,365,824	
Acquisition of Land for Development Purposes ...	... ..	1,295,500	1,247,366	32,467	15,667	
Land Settlement Scheme — Samarahan Estate ...	... ..	73,000 (3,458,749)	42,094 (1,811,243)	30,906 (216,015)	— (1,431,491)	
MEDICAL						
Health Centre ...	... ..	316,568	316,568	—	—	Completed
Leprosy Settlement Buildings ...	... ..	550,000	501,803	27,200	20,997	Transferred to recurrent budget (Part I) from 1.1.54
Travelling Dispensaries ...	... ..	146,458	146,458	—	—	
Travelling Doctors Scheme ...		120,000	688	40,000	79,312	
Extension of Anti-Tuberculosis Facilities, Kuching ...	... ..	110,000	54,039	—	55,961	
Anti-Tuberculosis Campaign ...	... ..	95,000	75,004	19,996	—	
WHO Anti-Malaria Survey, Local Contribution ...	... ..	74,712	74,712	—	—	Completed
Anti-Malaria Work ...	... ..	4,000,000	1,608,177	875,000	1,516,823	
Sibu Hospital Extension ...	... ..	1,510,600	1,144,992	365,608	—	
Sarikai Hospital ...	... ..	220,000	—	—	220,000	
New Hospital, Simanggang ...	... ..	1,324,897	577,874	747,023	—	
Kuching Hospital Improvements ...	... ..	482,180	337,124	115,760	29,296	
Miri Hospital, Grant for Renovation ...	... ..	225,000	—	225,000	—	
Mental Hospital ...	... ..	953,125	843,979	—	109,146	
Dispensaries ...	... ..	350,000	272,026	62,554	15,420	
Rural Sanitation Pilot Scheme ...	... ..	50,000	20,636	10,000	19,364	
		(10,528,540)	(5,974,080)	(2,488,141)	(2,066,319)	

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(contd.)

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
METEOROLOGICAL				
Meteorological Service ...	\$ 18,739	\$ 18,739	—	—
PORT DEVELOPMENT				
Gunong Ayer ...	600,000	481,575	—	118,425
Oil Storage Depot, Bukit Biawak, Kuching.	286,350	276,013	—	10,337
Oil Storage Depot, Sungai Merah, Sibu ...	45,000	43,033	—	1,967
Sibu ...	2,400,000	1,964,350	240,000	195,650
Miri Port Development ...	170,000	146,692	21,448	1,860
Kuching Port Development ...	4,488,000	1,234,503	1,483,558	1,409,939
Kuala Baram Wharf ...	117,500	86,184	10,000	21,316
Minor Wharfage ...	500,000	350,037	34,000	115,963
Brooke Dockyard ...	800,000	405,143	343,325	51,532
Sarikai Wharf ...	1,100,000	22,538	—	1,077,462
Simanggang Wharf and Equipment ...	200,000	7,424	190,169	2,407
	(10,706,850)	(5,017,492)	(2,682,500)	(3,006,858)
RESEARCH AND INVESTIGATIONS				
Preliminary Surveys (Public Works Department) ...	70,000	52,801	17,199	—
Experimental Iodised Salt ...	22,000	11,500	10,500	—
Grading of Timber ...	2,469	2,469	—	Completed
Pepper Marketing Investigations ...	45,000	35,858	9,142	—
Survey of Electricity Supply Problems ...	9,818	9,818	—	Completed
Bau Gold Mining Extraction — Investigations ...	3,500	675	—	—
Plateau Area Investigations ...	5,000	5,000	—	2,825
Kerangas Soil Survey ...	5,551	5,551	—	Completed

Timber Depot Investigations	...	8,170	8,112	—	58
Survey of Baram River Mouth	...	1,543	1,543	—	Completed
Survey of Lundu and Saratok Airfields	...	1,719	1,719	—	Completed
Timber Marketing Investigations	...	15,300	—	15,300	Completed
Port Investigations	...	6,094	6,094	(52,141)	(2,883)
ROADS AND BRIDGES					
Road Reconstruction Programme	...	18,757,823	15,657,685	1,264,403	1,835,735
Preliminary Surveys for Secondary Roads	...	8,746	8,746	—	—
Kuching/Serian Road (Sarawak Contribution)	...	157,723	157,723	—	Completed
Survey Serian/Simanggang Road	...	306,509	306,509	—	Completed
Serian/Simanggang Road	...	14,995,000	1,099,893	1,176,500	12,718,607
Town Roads, Second Division	...	250,000	172,129	77,871	—
Miri/Bekenu Road (Brighton Road Section)	...	90,000	88,224	—	Completed
Miri Town Area Roads	...	385,000	22,033	201,300	1,776
Sarikei/Binatang Road	...	4,500,000	1,139,352	996,400	161,667
Secondary Roads, Fifth Division	...	99,000	581,556	328,948	2,364,248
Minor Roads and Paths	...	3,000,000	1,845,203	632,835	88,496
Batu Kitang Bridge—Investigation	...	54,846	54,846	—	521,962
Grants to Kuching Rural District	...	—	—	—	Completed
Council and Upper Sadong District	...	—	—	—	—
Council (Senah Negeri and Tebedu Roads)	...	1,090,900	502,557	299,060	289,283
Road Development	...	464,232	464,232	(22,100,688)	(17,981,774)
SOCIAL WELFARE					
Girl's Home	...	260,150	186,189	73,961	—
TELECOMMUNICATIONS					
Survey of Telecommunications Plan	...	10,540	10,540	—	—
VHF Radio/Telephone	...	4,968,100	4,844,263	123,837	Completed
Multi-Channel VHF Radio	...	2,000,000	684,882	900,000	415,118
Telephone Exchange, Kuching	...	1,316,679	1,309,179	—	7,500
Extension Telephone Exchange, Kuching	...	781,240	572,022	209,218	—
Telephone Exchange, Sibu	...	629,480	629,502	69,978	—

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES — SARAWAK FUNDS—(contd.)

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
Extension Telephone Exchange, Sibu	\$ 420,500	\$ —	\$ —	\$ 420,500
Telephone Exchange, Miri	637,032	561,798	47,170	28,064
Improvement of W/T Service at Simanggang	11,259	11,259	—	—
Outstation Telephone System	455,000	376,950	74,870	3,180
H.F. Telephone Links to Ulu Areas	20,000	15,696	3,100	1,204
Contingencies	19,441	17,413	2,028	—
Aeronautical Telecommunication	868,100	845,169	22,931	—
	(12,137,371)	(9,808,673)	(1,453,132)	(875,566)
SOCIOLOGICAL RESEARCH				
Sarawak Contribution to C.D. & W. Scheme R.270	8,015	8,015	—	—
TOWN DEVELOPMENT				
Limbang Bazaar	154,700	150,126	—	4,574
Bekenu Bazaar	92,176	92,176	—	—
Simanggang Bazaar	169,434	169,434	—	—
Panchor Bazaar	276	276	—	—
Sibu Bazaar	2,674,208	1,228,762	565,695	879,751
Miri Bazaar	300,000	149,740	8,430	141,830
Kampong Gita, Kuching	722,095	533,068	151,002	38,025
Simunjan Bazaar	175,000	67,847	67,143	40,010
Lawas Bazaar	—	174,000	34,176	84,665
Marudi Bazaar	—	180,000	100,672	64,801
Saratok Bazaar	200,000	—	—	200,000
Maong Bazaar	145,000	47,756	—	22,242

Bazaar Drains	...	...	300,000	109,100	439,418	119,935
Batu Lintang Bazaar	...	...	73,000	21,209	49,500	2,291
Bangkitia Scheme—Limbang	...	...	42,000	1,767	40,233	—
			(5,401,989)	(2,706,109)	(1,111,471)	(1,584,309)
WATER SUPPLIES						
Grant to Kuching Water Board	...	...	4,519,273	3,959,920	439,418	119,935
Grant to Sibu Water Board	...	...	915,000	609,553	272,663	32,784
Sungei China Pipeline, Kuching	...	...	340,605	340,605	—	—
Simunjan	...	...	...	68,734	—	Completed
Sarikei and Binatang	...	...	...	999,780	997,990	—
Bau	...	...	...	60,000	54,828	—
Miri	...	...	...	453,500	437,079	—
Limbang (Improvements)	...	...	...	15,022	15,022	—
Lawas	...	...	...	88,000	87,414	—
Kapit	...	...	...	94,000	—	Completed
Kanowit	...	...	...	98,000	—	—
Song	...	...	...	82,000	—	82,000
Mukah Waterworks	...	...	...	8,000	694	—
Simanggang	...	...	...	460,000	301,930	31,383
Lundu	...	...	...	54,000	52,354	—
Marudi	...	...	...	104,000	—	1,646
Serian	...	...	...	100,000	—	—
Bintulu	...	...	...	25,000	765	104,000
Santubong	...	...	...	20,000	19,971	50,000
Establishment of Metered Systems	...	...	...	245,100	177,541	50,000
Loan Finance for Minor Water Supply Schemes	...	...	...	—	—	4,235
Loan for Kuching Water Board	...	...	7,500,000	—	—	29
Loan for Sibu Water Board	...	...	2,698,000	—	870,000	22,389
			(19,443,094)	(7,124,400)	(2,504,720)	(9,813,974)

APPENDIX A—(contd.)
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS—(contd.)

<i>Title of Scheme</i>	<i>Total estimated cost of scheme</i>	<i>Actual Expenditure to 31.12.58</i>	<i>Estimated Expenditure 1959</i>	<i>Balance of Scheme</i>
WATERWAYS				
Sungei Kut Canal	410,000	350,878	29,122
River Works (anti-erosion works and blasting of works in rapids)	546,575	317,846	84,538
Hydrographic Survey	60,000	48,580	6,979
Aikman Canal improvements-preliminary works	12,000	—	12,000
		(1,028,575)	(775,304)	(132,639)
DEVELOPMENT STAFF				
Agricultural and Engineer Officers	2,454,678	1,962,351	237,122
PLANT AND EQUIPMENT				
Public Works Department Plant and Equipment	2,600,000	1,763,720	600,000
MISCELLANEOUS				
Dayak Resthouses	50,194	47,694	2,500
Provision for Recreational Facilities	232,118	232,078	—
Development Finance Corporation	1,000,000 (1,282,312)	1,000,000 (1,279,772)	(2,500)
TOTAL DEVELOPMENT PLAN SCHEME—SARAWAK FUNDS	184,175,603	95,357,481	27,158,516
				61,659,606

APPENDIX B
TABLE IA. NUMBER OF SCHOOLS AND PUPILS AS IN SEPTEMBER, 1958

TYPE OF SCHOOL	PRIMARY				SECONDARY				TEACHER-TRAINING			
	School	ENROLMENT			School	ENROLMENT			School	ENROLMENT		
		Male	Female	Total		Male	Female	Total		Male	Female	Total
GOVERNMENT AND AIDED SCHOOLS	School				School				School			
VERNACULAR AND ENGLISH-MEDIUM												
Government	4	391	151	542	4	304	66	370	3	291	114	405
Local Authority	333	16,744	6,266	23,010	—	—	—	—	—	—	—	—
Private (Village Committee)	6	515	363	878	—	—	—	—	—	—	—	—
Mission Native	113	5,932	2,312	8,244	4	246	70	316	—	—	—	—
Mission Other	20	3,748	2,824	6,572	12	1,669	913	2,582	—	—	—	—
CHINESE-MEDIUM												
Local Authority	5	285	232	517	—	—	—	—	—	—	—	—
Boards of Management	237	22,393	16,612	39,005	15	3,201	1,644	4,845	—	—	—	—
Mission	5	826	716	1,542	2	391	204	595	—	—	—	—
UNAIDED SCHOOLS	33	1,018	888	1,906	1	2	6	8	—	—	—	—
TOTAL	756	51,852	30,364	82,216	38	5,813	2,903	8,716	756	51,852	30,364	82,216
Add Primary												
GRAND TOTAL	794	57,665	33,267	90,932								

APPENDIX B—(contd.)

TABLE IB. NUMBER OF PUPILS CLASSIFIED BY RACE AND BY TYPE OF SCHOOL AS IN SEPTEMBER, 1958
 In this table the columns for Local Authorities and Missions include all schools under these managements, whatever the medium of instruction.

RACE OF PUPILS	Total Population of racial group (Estimated 1957)	TYPE OF SCHOOL						Percentage of Population	
		AIDED SCHOOLS			UNAIDED SCHOOLS				
		Gov't. Schools	Local Authority	Missions	Chinese Boards	Village Committees (Private Schools)	Unaided Schools		
Chinese	197,723	P. 82	P. 835	P. 7,132	P. 38,799	P. 15	P. 1,272	P. 48,155	
	S. 73	S. —	S. 2,743	S. 4,845	S. —	S. —	S. 7,661	55,816	
Malays	118,226	P. 227	P. 10,672	P. 1,187	P. 77	P. 832	P. 136	28.23	
	S. 205	S. —	S. 270	S. —	S. —	S. 8	S. 13,122	11,51	
Dayaks and other Indigenous	323,176	P. 200	P. 11,884	P. 7,659	P. 123	P. 40	P. 451	P. 20,357	
	S. 92	S. —	S. 398	S. —	S. —	S. —	S. 490	20,847	
Other Asians	6,896	P. 32	P. 115	P. 252	P. 6	P. —	P. 20	6.45	
	S. —	S. —	S. 38	S. —	S. —	S. —	S. 38	6.71	
Burmans, Europeans, etc.	2,341	P. 1	P. 1	P. 128	P. —	P. —	P. 27	463	
	S. —	S. —	S. 44	S. —	S. —	S. —	S. 44	201	
TOTAL	648,362	P. 542	P. 23,527	P. 16,358	P. 39,005	P. 878	P. 1,906	90,932	
		S. 370	S. —	S. 3,493	S. 4,845	S. —	S. 8	14.02	
							S. 8,716		

P. denotes Primary.

S. denotes Secondary.

APPENDIX C

SARAWAK ELECTRICITY SUPPLY COMPANY LIMITED

POSITION AS AT 31ST DECEMBER, 1958

Township or location	Installed capacity (kilowatts)	M.D. on Station	Supply AC/DC	Units sold 1958	No. of Consumers	Daily supply period (hours)	Remarks
Kuching	2,719	2,150	AC AC	6,857,787 557,464	5,234 103	24 24	New station being built.
7th Mile	738	290	AC AC	13,045	38	12	Due to be closed down and fed from Kuching.
10th Mile	12	10	AC AC	48,247	121	13	Due to be fed from Kuching.
Bau	50	44	AC AC	44,156	92	13	Extra set to be installed.
Serian	92.5	33	AC AC	52,081	131	13	
Betong	100	44	AC AC	141,731	254	24	6,600 volt primary.
Simantgang	118	73					Distribution planned.
Sibu	1,100	752	AC	2,511,384	2,258	24	Plant ex Kuching to be installed.
Sarikei	172	103	AC DC	255,880 77,249	317 170	24 13	Converting to AC.
Binatang	68	50	AC DC	63,240	128	13	Extra set to be installed.
Kanowit	50	34	AC DC	107,610	175	18	
Mukah	72	53	AC AC	901,072	849	24	Plant ex Kuching to be installed.
Miri	549	404					Converted to AC.
Bintulu	66	50	DC AC AC	77,455 64,270 81,707	157 156 210	13 13 13	Extra set to be installed.
Marudi	100	50					
Limbang	111	63					

APPENDIX D

HEIGHT OF STATION 85 FEET A.M.S.L.

CLIMATOLOGICAL SUMMARY, 1958
STATION : KUCHINGLONGITUDE : 110° 20' E
LATITUDE : 1° 29' N

1958

JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Means or Extremes
1958													
Mean 0800 hours:													
Air pressure at M.S.L. (mbs)	1012.9	1011.6	1011.3	1010.2	1010.3	1010.4	1010.2	1011.0	1011.2	1011.3	1012.1	1213.45	1011.2
Air Temperature in Degrees F													
Means of—													
"A" Maximum	85.3	86.3	87.6	89.1	90.4	90.2	92.9	88.5	89.3	88.4	87.9	85.1	1061.0
"B" Minimum	72.7	72.8	73.2	72.9	73.5	73.3	71.3	72.3	72.5	72.3	71.8	72.9	871.7
Mean of "A" & "B"	79.0	79.5	80.4	81.0	81.9	81.9	82.1	80.4	80.9	80.3	79.9	79.0	966.3
Absolute extremes:													
Highest maximum	90.8	92.3	92.3	93.4	93.6	94.6	97.3	92.8	93.8	91.7	91.2	89.2	—
Date	17	10	10	21	31	6	17	7	10	19	17	18	—
Lowest minimum	70.4	69.8	71.0	69.7	71.3	70.2	68.3	70.4	68.3	69.6	69.1	70.6	—
Date	8	19	2 & 30	16	19	27	7	6	23	2	24	2	—
Lowest maximum	76.0	76.7	79.9	79.1	87.2	83.6	85.9	80.7	78.4	82.9	81.9	77.0	—
Date	5	18	15	27	7	26	30	1	16	10	9	7.1	—
Highest minimum	74.0	75.2	75.4	75.6	75.9	77.3	75.3	74.0	76.9	74.9	74.9	77.3	—
Date	9	4	6	9	13	1	30	1	11	25	20	21	—
Rainfall:													
Total inches	26.34	14.02	7.86	12.16	11.62	6.20	1.08	10.02	8.96	15.25	9.16	23.81	146.48
Most in a day—													
Amount (inches)													
Date	5	15	20	27	19	6	1.17	0.49	2.16	2.56	3.71	1.48	5.46
Number of days:													
Precipitation	28	21	22	16	17	20	5	25	17	22	23	27	243
Thunderstorm	10	4	10	8	7	11	8	1	10	13	7	8	—
Thunder heard	11	10	17	17	12	13	14	14	16	21	11	9	103
Fog	2	3	4	2	3	4	2	2	1	3	8	4	164
Bright sunshine:													
Total hours	116.10	131.85	138.20	181.25	188.15	175.00	248.25	141.95	158.05	136.55	144.35	105.60	1865.30
Daily mean (hour)	3.75	4.71	4.46	6.04	6.07	5.83	8.04	4.58	5.27	4.40	4.81	3.41	61.37
Earth temperature:													
1 foot °F	82.7	83.0	84.0	84.4	84.9	85.8	86.2	84.6	84.5	83.5	82.9	81.8	1008.3
4 feet °F	83.5	83.7	84.0	84.7	85.0	85.8	86.2	85.5	84.9	84.3	83.9	83.0	1014.5

APPENDICES

LATITUDE : $3^{\circ} 11' N$
 LONGITUDE : $113^{\circ} 59' E$

APPENDIX D—(contd.)

CLIMATOLOGICAL SUMMARY, 1958

HEIGHT OF STATION 85 FEET A.M.S.L.

1958

1958												Means or Extremes
JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Mean 0800 hours:												
Air pressure at M.S.L. (mbs)	1012.8	1012.2	1011.7	1011.4	1010.7	1010.5	1010.8	1010.6	1011.3	1011.4	1011.9	12136.6
Air Temperature in Degrees F												
Means of—												
“A”, Maximum	86.3	85.9	87.3	88.4	88.8	90.0	87.2	88.0	87.3	85.6	85.7	1049.0
“B”, Minimum	73.7	73.9	74.1	73.8	74.6	72.6	72.9	73.0	73.6	72.9	73.5	882.6
Mean of “A” & “B”	80.0	79.9	80.7	81.1	81.7	81.3	80.1	80.5	80.5	79.3	79.6	966.0
Absolute extremes:												
Highest maximum	89.9	89.4	91.0	90.2	94.3	91.8	93.1	91.8	93.2	92.3	88.8	88.6
Date	7	5	5	8	28	24	16	31	10	11	21	—
Lowest minimum	71.3	70.9	71.0	70.2	72.5	71.8	68.8	70.9	71.2	71.6	70.2	71.0
Date	18	1	1	17	24	3	7	28	20	20	22	1
Lowest maximum	82.8	83.0	82.0	84.5	84.0	78.9	78.0	82.1	81.0	83.6	82.7	—
Date	24	21	1	27	13	28	27	11	24	30	12	78.0
Highest minimum	75.5	76.4	78.2	76.9	76.4	77.6	76.0	74.8	75.9	74.8	75.5	—
Date	27	8	22	10	5	1	12	4	13	4	8 & 20	16&23
Rainfall:												
Total inches	18.02	4.88	8.47	4.43	6.89	8.33	1.04	17.77	7.79	18.23	13.53	23.51
Most in a day—												—
Amount (inches)	4.02	1.22	3.21	1.63	1.50	1.63	0.39	2.80	2.07	3.38	4.69	—
Date	5	8	22	21	2	16	26	11	23	8	5	26
Number of days:												
Precipitation	21	16	17	11	15	17	6	25	19	23	21	—
Thunderstorm	6	6	6	4	3	4	6	6	2	2	5	—
Thunder heard	9	2	10	7	7	8	10	8	12	6	5	—
Fog	5	5	6	3	5	3	2	—	2	3	2	—
Bright sunshine:												
Total hours	182.75	149.50	200.70	224.50	204.10	190.70	255.70	181.80	173.40	166.10	144.70	179.20
Daily mean (hour)	5.89	5.34	6.47	7.48	6.38	6.36	8.25	5.86	5.78	5.36	4.82	5.78
Earth temperature:												
1 foot °F	83.1	84.3	85.3	86.9	85.6	85.9	86.1	84.0	84.5	84.3	84.0	1018.5
4 feet °F	84.5	85.0	85.7	86.7	86.3	86.9	86.4	85.6	85.4	85.3	84.7	84.5

APPENDIX D—(contd.)

CLIMATOLOGICAL SUMMARY, 1958

HEIGHT OF STATION 10 FEET A.M.S.L.

STATION: MIRI

LATITUDE: 4° 23' N
LONGITUDE: 113° 59' E

1958

	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Means or Extremes
Mean 0800 hours:														
Air pressure at M.S.L. (mbs)	1012.9	1012.2	1011.6	1011.3	1010.5	1010.1	1010.3	1010.0	1010.9	1011.1	1011.3	1011.8	12134.0	1011.2
Air Temperature in Degrees F														
Means of—														
"A," Maximum	87.3	87.1	88.5	88.8	88.4	89.1	88.9	86.9	87.2	86.8	85.6	86.4	1051.0	87.6
"B," Minimum	75.0	74.9	75.1	75.1	75.6	75.3	74.8	74.1	74.6	74.7	74.2	74.8	898.2	74.9
Mean of "A" & "B"	81.1	81.0	81.8	81.9	82.0	82.1	81.9	80.5	80.7	80.6	80.6	80.6	974.5	81.2
Absolute extremes:														
Highest maximum	90.2	89.6	90.6	90.6	92.2	92.8	95.2	92.0	91.2	90.3	88.5	90.2	—	95.2
Date	26	26	27	27	27	28	28	28	27	27	20	13	16	6th June
Lowest minimum	72.9	71.2	71.5	71.5	69.8	72.5	72.1	71.4	72.2	72.2	71.4	72.8	—	69.8
Date	8	8	9	9	10	11	11	11	12	12	11	11	4	15th April
Lowest maximum	80.2	84.0	85.8	84.9	83.2	81.4	85.0	83.0	83.1	82.8	81.0	81.0	—	80.2
Date	10	21	21	26	29	28	28	28	28	28	15	21	2	10th Jan.
Highest minimum	77.7	77.4	78.0	77.1	78.9	78.0	77.8	76.5	76.5	76.8	76.1	77.1	—	78.9
Date	27	21	21	22	22	6	13	13	30	30	20	14 & 15	23	6th May
Rainfall:														
Total inches	16.35	1.05	4.81	0.72	7.62	11.06	0.44	23.64	8.68	19.42	14.82	6.50	115.11	—
Most in a day—														
Amount (inches)	2.81	0.33	1.36	0.28	1.92	2.61	0.21	6.30	1.89	4.78	4.66	1.47	—	6.30
Date	6	3	4	22	6	25	27	11	24	7	23	29	—	11th Aug.
Number of days:														
Precipitation	19	9	11	6	17	19	4	22	18	24	22	22	193	—
Thunderstorm	8	—	7	1	6	2	4	5	4	1	3	3	48	—
Thunder heard	9	3	11	5	12	11	12	7	16	9	6	7	108	—
Fog	2	—	1	1	—	—	—	—	—	—	—	—	4	—
Bright sunshine:														
Total hours	226.05	192.00	241.20	230.35	215.45	240.70	253.25	189.65	192.20	202.75	174.10	212.75	2590.45	215.87
Daily mean (hour)	7.29	6.86	7.78	8.35	6.95	8.02	8.17	6.12	6.41	6.54	5.80	6.86	85.15	7.09
Earth temperature:														
1 foot °F	82.9	84.4	85.1	87.9	85.6	87.0	87.0	83.8	84.9	83.8	83.0	83.1	1018.5	84.9
4 feet °F	84.4	84.4	85.7	87.1	86.7	87.4	86.8	85.9	85.4	84.9	84.5	84.5	1029.7	85.8

APPENDIX E

GOVERNOR AND COMMANDER-IN-CHIEF

Sir Anthony Foster Abell, K.C.M.G.

MEMBERS OF SUPREME COUNCIL AT THE END OF 1958

The Hon. the Chief Secretary (Mr. A. R. Snelus, *acting*)

- „ the Financial Secretary (Mr. B. A. St. J. Hepburn)
- „ the Attorney-General (Mr. P. E. H. Pike, Q.C.)
- „ Abang Haji Mustapha bin Abang Haji Moasli, C.B.E.
(Datu Bandar)
- „ Abang Haji Abdul Razak
- „ Mr. Bangau anak Renang
- „ Mr. A. F. R. Griffin
- „ Mr. Khoo Peng Loong
- „ Mr. Ong Kee Hui
- „ Mr. William Tan Ho Choon

MEMBERS OF SUPREME COUNCIL AT THE END OF 1958

*President:*The Hon. the Chief Secretary (Mr. A. R. Snelus, *acting*)*Ex-officio Members:*

The Hon. the Financial Secretary (Mr. B. A. St. J. Hepburn)

- „ the Attorney-General (Mr. P. E. H. Pike, Q.C.)
- „ the Resident, First Division (Mr. A. F. R. Griffin)
- „ the Resident, Second Division (Mr. A. J. N. Richards)
- „ the Resident, Third Division (Mr. M. J. Forster, *acting*)
- „ the Resident, Fourth Division (Mr. J. C. B. Fisher,
O.B.E.)
- „ the Resident, Fifth Division (Mr. H. P. K. Jacks)
- „ the Director of Education (Mr. M. G. Dickson)
- „ the Director of Public Works (Mr. J. K. Wardzala)
- „ the Director of Agriculture (Mr. J. Cook)
- „ the Director of Medical Services (Dr. W. Glyn Evans)
- „ the Secretary for Local Government
- „ the Development Secretary (Mr. A. R. G. Morrison,
acting)

Elected Members:

The Hon. Abang Haji Abdul Razak

- „ Mr. Bangau anak Renang
- „ Mr. Chan Yong Khow
- „ Mr. Chang Ta Kang
- „ Mr. Chia Chin Shin
- „ Orang Kaya Pemancha Dukau
- „ Inche Habibullah bin Majid
- „ Temenggong Jugah anak Barieng
- „ Mr. Khoo Peng Loong
- „ Mr. Kueh Yong Kwang
- „ Mr. Ling Beng Siew
- „ Mr. Mohamed Atahar Khan
- „ Pengarah Montegrai anak Tugang
- „ Tua Kampong Muip bin Tabib
- „ Mr. Ong Guan Cheng
- „ Mr. Ong Kee Hui
- „ Temenggong Oyong Lawai Jau, M.B.E.
- „ Haji Su'ut bin Tahir
- „ Mr. Tiong Siew King
- „ Mr. Umpi Rantai
- „ Mr. Yeo Cheng Hoe
- „ Mr. Stephen Yong Kuet Tze
- „ Haji Zainal Abidin bin Haji Taib
- „ Datu Abang Haji Zin, M.B.E.

Nominated Members:

The Hon. Abang Haji Mustapha bin Abang Haji Moasli, C.B.E.
(Datu Bandar)

- „ Pengarah Banyang anak Janting
- „ Mr. C. B. Horn
- „ Mr. William Tan Ho Choon

Standing Members:

The Hon. Datu Abang Openg

- „ Abang Mustapha, B.E.M.

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